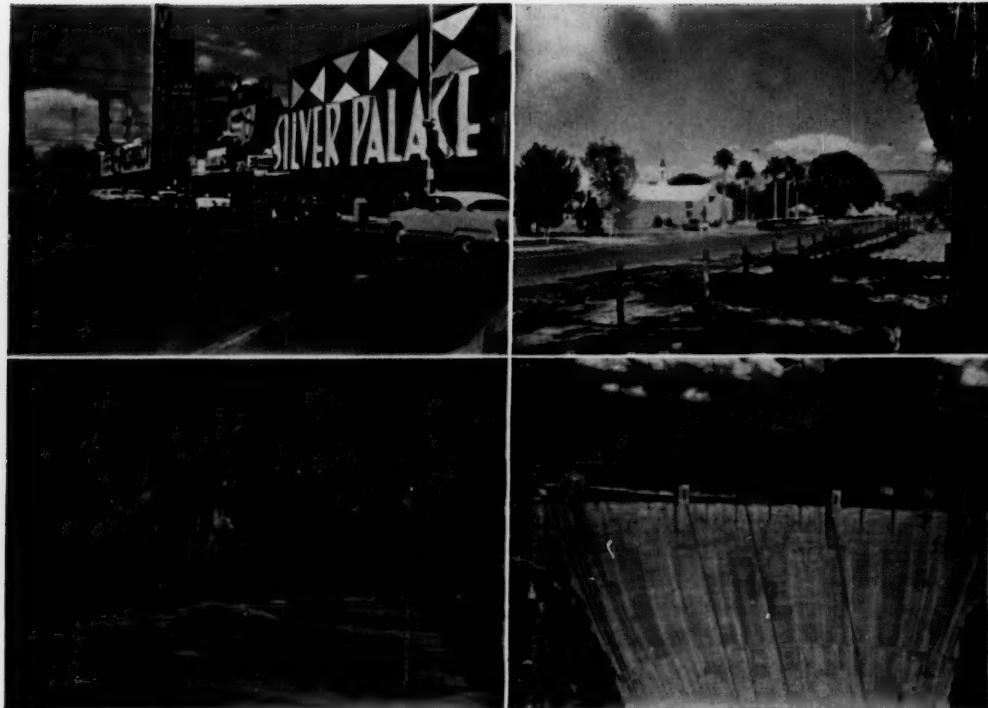


THE Nation's Schools



CLARK COUNTY, NEVADA—Testing Ground for School County Unit Plan. *Upper left*, Las Vegas, gambling center; *upper right*, Mormon agricultural colony, Overton; *lower left*, scenic desert, Valley of Fire; *lower right*, Hoover Dam.

July

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Documentary Evidence Favors Multigrade Teaching PAGE 33

The Real Attack Is Upon Education for the People PAGE 38

School Costs May Be Lower Than You Think PAGE 50

Trisectioned Areas for Greater Use of Teaching Space PAGE 44



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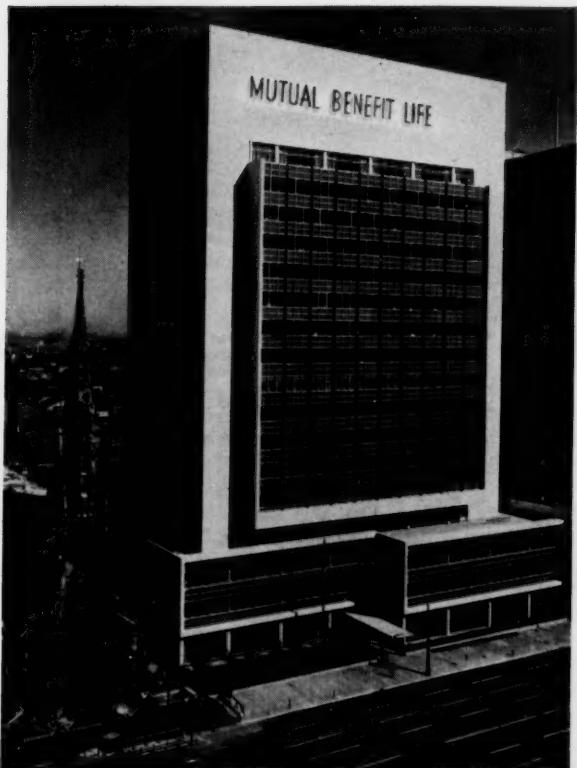
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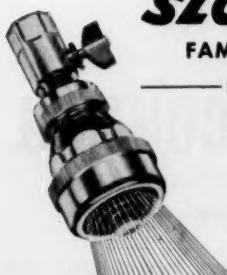
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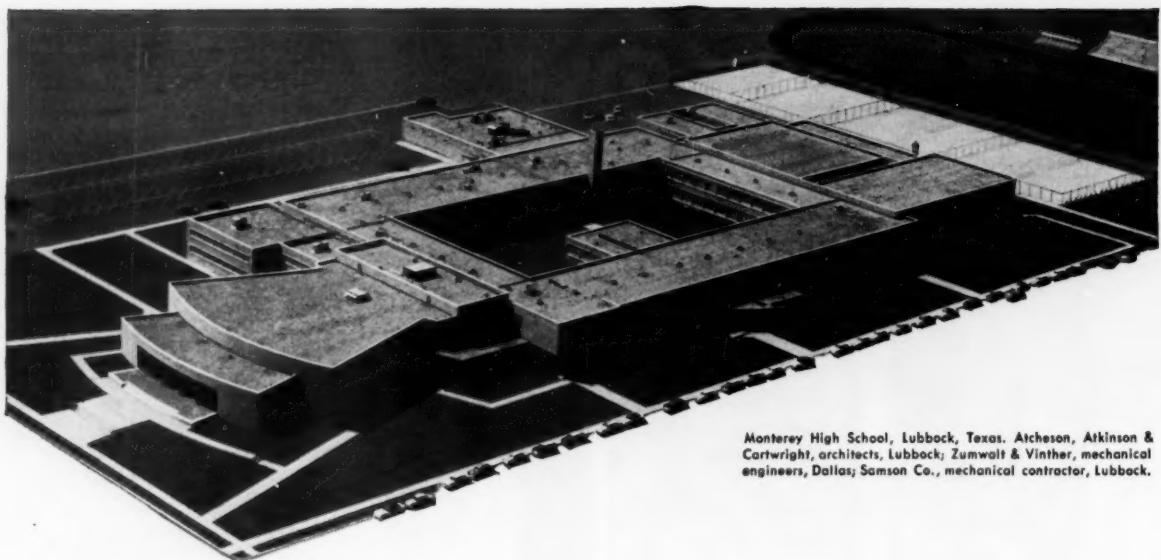
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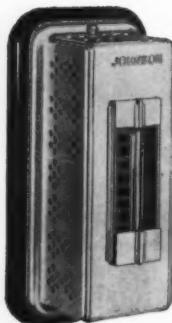
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THE Nation's Schools

JULY 1958

THE MAGAZINE OF BETTER SCHOOL ADMINISTRATION

Vol. 62, No. 1

Articles in this issue

Another Test in Nevada

R. GUILD GRAY and ARTHUR H. RICE

Jet airfields and old mining towns, desert and farmland, and the clink of silver dollars in collections at Las Vegas' many churches are a few of the contrasts consolidated into the 8000 square mile school district of Clark County. It's a testing ground for county school administration problems. 27

Multigrade Teaching

J. H. HULL

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Real Attack Is on Education for All the People

ARTHUR F. COREY

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Summer in Sugartown

FREDERICK J. MOFFITT

Working days, hot days, dog days, solar days are only a part of the daze that is the summer lot of the superintendent at Sugartown. In his usual lighthearted style, Mr. Chalk Dust takes us behind the scenes to tell why summer vacations for superintendents often are only dreams. 41

Propose Solutions to Problems of School Finance

LEO E. BUEHRING

As school enrollments go up, tax collections in some states are going down. Here are some conclusions from a national conference called to consider the financial plight of school districts. Princeton economist predicts that education costs will double in ten years. 43

Costs May Be Lower Than You Think

PAUL L. REASON

This U.S. Office of Education expert tells how exaggerated receipt and expenditure figures lead to inflated and unrealistic statistics on pupil costs. This ballooning can be avoided, he says, through the use of clearing accounts. Loans are sometimes recorded erroneously. 50

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THE Nation's Schools

OPINION POLL

Professional Status

Is school administration a profession? Yes, replied 70 per cent of the superintendents answering this month's question. They propose eight qualifications as measuring devices.

Summarized by HOLLIS A. MOORE Jr. 37

SCHOOLHOUSE PLANNING

Teaching in Trisectioned Areas

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CHARLES D. GIBSON. 44

Profusion of Light Through Roof, Windows

An illuminating system for a junior high school in Davenport, Iowa, combines the use of skylighting with glass block and artificial lighting. 48

SCHOOL LUNCH

Administrators Lead in Discussing Lunch Program

Whether a convenience or a necessity, the school feeding program is demanding more of the superintendent's attention to its effect on budget, buildings and curriculum. 54

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THE COVER. The southern tip of Nevada attracts visitors from every state in the union. Many come for gambling in downtown Las Vegas or on the 5 mile Strip leading from city to airport. Few of these visitors see the many other interesting places in the 8000 square miles of Clark County, other than Hoover Dam. To the north and east is desert beauty, such as the wind carved red stone formations in the Valley of Fire. Sustained by the Virgin River are thrifty agricultural communities. Winding roads lead to a few remaining mining towns. And not far from Las Vegas is Nellis Air Base, said to be the government's largest training station for jet pilots. In all of these communities children are seeking their birthright of a public school education, and all are now served by one school administration, Clark County.



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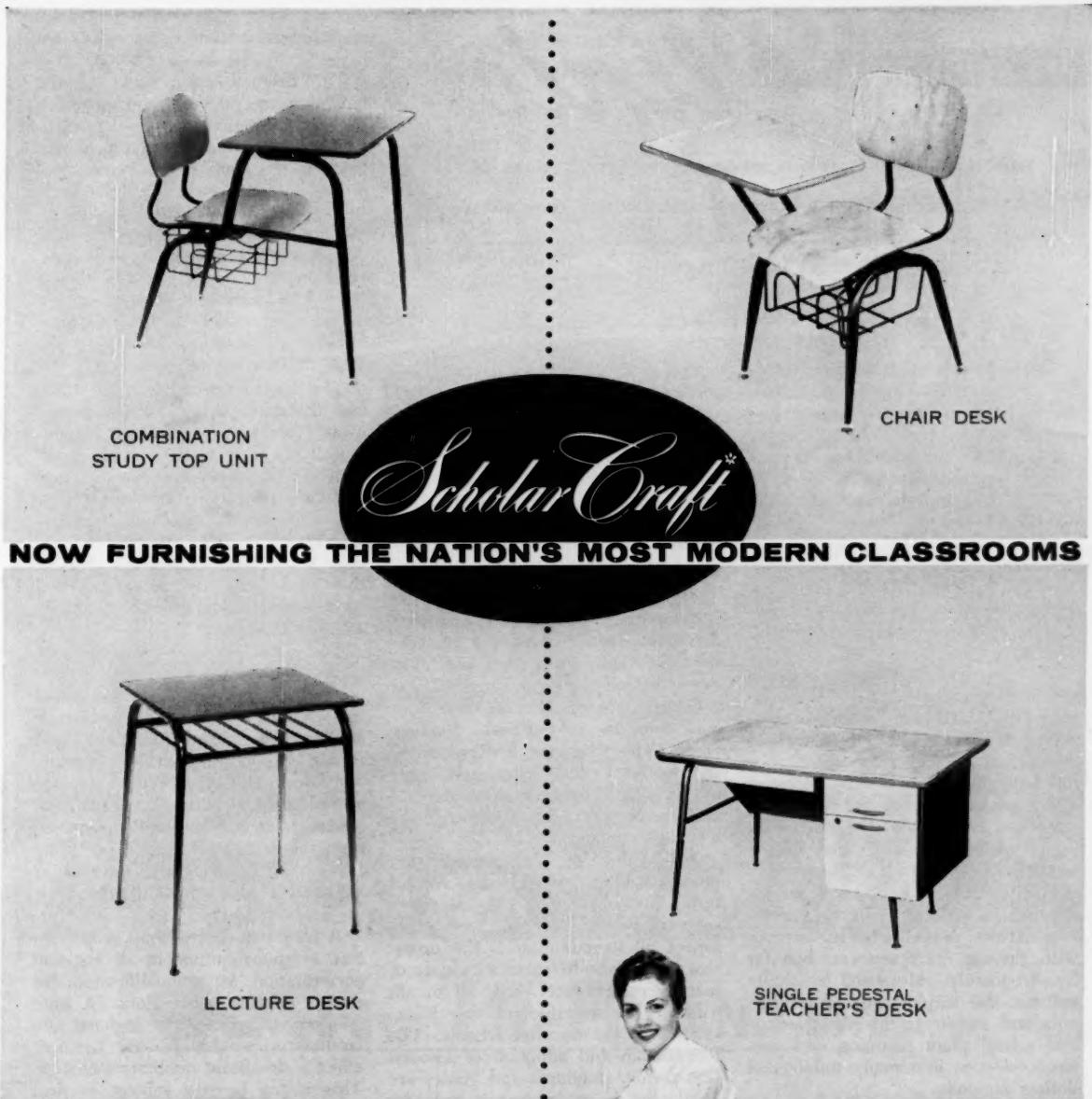
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Schools contract for more services . . . Contributions of
the accrediting groups . . . Complaints aren't new ones

By CALVIN GRIEDER, professor of school administration, University of Colorado

Should boards contract more services? Here is a question that bids fair to come up with increasing frequency as school districts get bigger and fewer: Should school boards contract to purchase more services in preference to undertaking these services themselves?

At first glance this may not look like an important matter, but the more one thinks about it the bigger it grows. A quite considerable array of services is now being furnished by contract.

The problem that many districts feel as they grow—whether by reason of reorganization or other causes—is how to provide most efficiently and economically all the services that a full-fledged school system requires. There are points at which one or another service needs to be done, service of a kind the district may be too small to provide itself.

One frequently contracted service is pupil transportation. Food service is sometimes provided for by contract with private entrepreneurs, but far less frequently. Measured by dollar volume, the employment of consultants and architects for site selection and school plant planning and construction runs into many millions of dollars annually.

The auditing of school district accounts and funds is another service commonly contracted for with private professional practitioners, the only legal way in some states and generally the best way. In new housing areas, school facilities are sometimes erected by the developers and leased to school districts.

Incipient interest is being shown in maintenance of grounds by contract and in procuring accounting and bookkeeping service on a sort of "custom" basis.

Personnel needs, salaries and wages, suitable job combinations, original, maintenance and operation costs of equipment, work and storage space are important factors on which all or some decisions must rest. The availability of services of acceptable quality and retention by the district of

control over the services are also important considerations.

Broadly speaking, school systems find it preferable to make their own provision for all services, although evidence on this is not conclusive. It is conceivable that even if this is true in the main, exceptions can be readily justified in a given set of conditions. The best possible educational service is the ultimate criterion, of course.

Accrediting groups make contributions. Regional accrediting associations constitute a respected and fairly successful self-improvement effort, and a unique contribution of American education to educational practice. Since 1940, when the first edition of "Evaluative Criteria" appeared, there has been a wholesome stimulation of improvement in the member high schools.

The value of the accreditation process is being recognized in several states by adapting it to elementary schools. Perhaps the most vulnerable aspect of accreditation is the excessive reluctance to raise standards of teacher competence. But, all in all, a strong constructive pressure is exercised on the member schools. The formulation and adoption of association policy, standards and guides are conducted in a democratic way, involving study, discussion and voting.

What few people realize is that a central concept in accreditation is its voluntary nature. Schools ask, through their responsible officials, for evaluation, followed by accreditation if standards are met to a reasonable degree. The whole process of regional accreditation lies in the realm of extra-legal efforts to improve education; it is not carried on as a regulatory or statutory responsibility of government.

In the making is a rather definite change in this basic concept, leading to close association of accreditation with state administration of education and eventually to the requirement of accredited status as a condition of participation in state support. At least in the 19 states of the North Central Association, the largest, old-

est and most influential regional accrediting association, these shifts seem to be in the works.

The original constitution of the N.C.A., some 60 years ago, provided for the designation of the institutional (state university) representative on the state N.C.A. committee as the state chairman, but if the institution was not prepared to accept, the designation could go to the state department of education. The constitution now provides for a review every four years, each state committee deciding who shall be the chairman, either in the state university or in the state department of education.

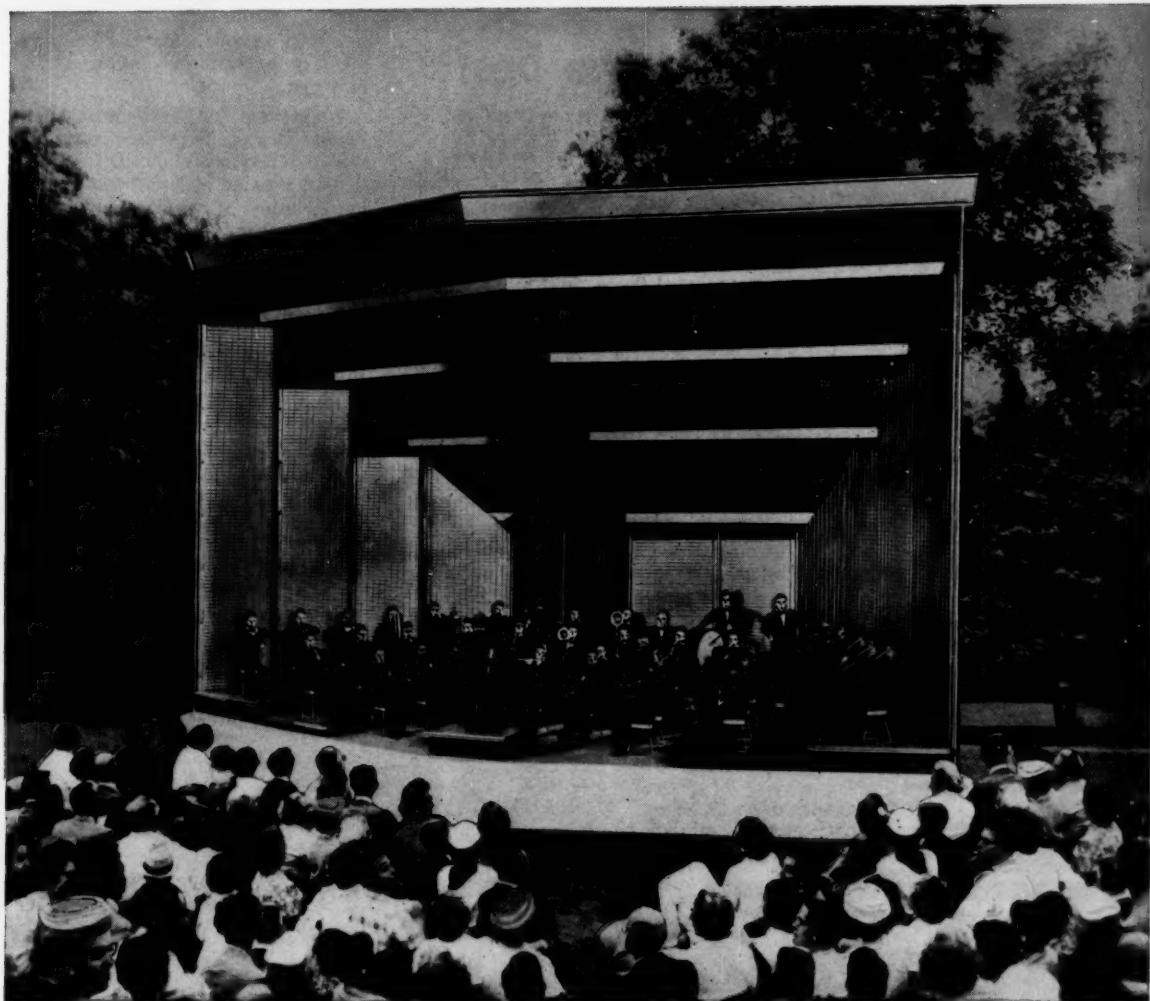
The long-time trend is in the direction of state department chairmen and away from university-affiliated chairmen. At present, nine state chairmen are university people, and nine are state education department people. (One acting chairman is a city school man.) While only two changes have taken place in the last decade, they have been in the state department direction, and other like changes are being explored.

This development is probably to be expected as state education departments have grown in competence and in staff, and in view of the chronic university shortages of personnel and money. Yet I question the wisdom and desirability of tying regional accreditation in with official agencies. Many states now carry on accreditation for state purposes, and some make this kind of accreditation or approval a condition of participation in state support.

It would be but a short step from this to the requirement of regional accreditation as a qualification for receipt of state subventions. A state government stamp on regional accreditation would, in my opinion, effect a significant qualitative change. This is too large a subject to deal with here; it is worthy of more extended inquiry and treatment.

Complaints aren't new. The clamor for changes in our educational system goes back to a long time before sputnik. Here is a criticism published in the *Overland Monthly* for October 1868, in an article titled "Some Faults and Failings in American Education":

"The child enters a primary school at the age of 6, where he spends a couple of years, at least, in learning to read. For three years longer he is laboring at the four fundamental rules of arithmetic, not as yet up to the mysteries of fractions. He trifles with geography, is inducted into physiology as a treat, and finally reaches the high school of his town at from 13 to 16 years of age, writing with a flowery hand, shaky about



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spelling, and in no condition to digest the load of mathematics and fragmentary science that is spread before him."

Suggestion for overheated classrooms. One of my pet peeves is overheated schoolrooms, which I propose to take a swing at later. Just in time for inclusion in the summer maintenance program is this suggestion from a member of one of the nation's leading firms in school architecture: "Perhaps fake thermostats in each classroom may be the answer. Each teacher would *think* she was controlling the temperature." #

LETTERS TO THE EDITOR

Planets, Not Constellations, Should Have Been Identified

Dear Editor:

In the article, "Programs for Elementary School Science" in the May 1958 issue of *The Nation's Schools*, the caption on page 46 states that "pupils at Glencoe, Ill., learn the location of the constellations from a chart of the solar system."

This is inaccurate. You can't learn the constellations in the solar system since it consists only of the sun, planets and moons. The children are pointing to planets, not constellations. —JOHN STERNIG, *assistant superintendent in charge of instruction, Glencoe, Ill.*

Nobody hears a handshake. A woman resident in Greenwich Village, N. Y., who preferred to remain anonymous, asked that each of her new neighbors at P.S. 701, a special school for problem boys, be given a book as a "welcome" gift. The opening of the school was strongly opposed by some in the neighborhood. "You must not believe that all villagers feel like the people who made the commotion," she said in a letter, "those of us who did not join in were not noticed . . . and it's unfortunate. The loud noise is what is heard. Nobody notices the handshake."

"Girls, keep out!" A drastic cut in the number of women in coeducational colleges may have to be the solution to overcrowding in universities, thinks Philip Ward Burton, school of journalism professor at Syracuse University. He contends in *This Week* magazine that (1) men need a college degree more than women need it, and (2) most women have less sensible or less demanding reasons for going to college. Unless women are of superior intellect, and their goals are aimed toward such useful professions as teaching, science, medicine, music, art or journalism, Professor Burton thinks junior college is sufficient.

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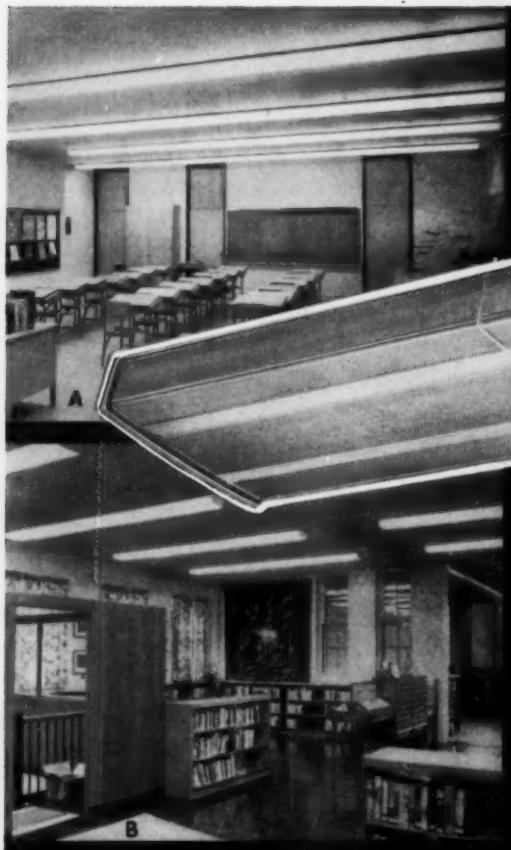
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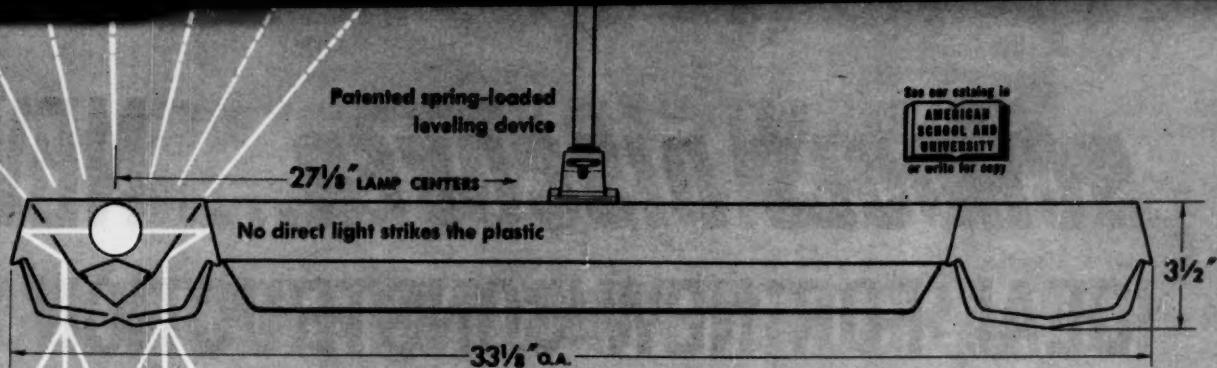
27 1/8" wide
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blends with ceiling



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Patents Pending



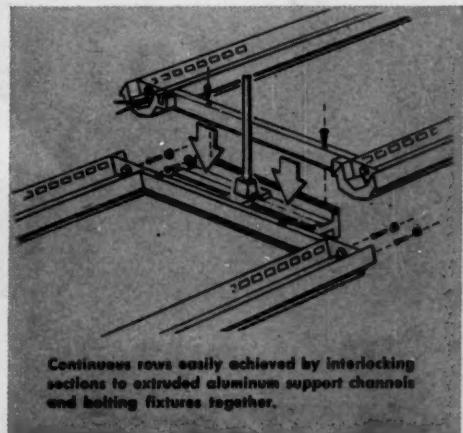
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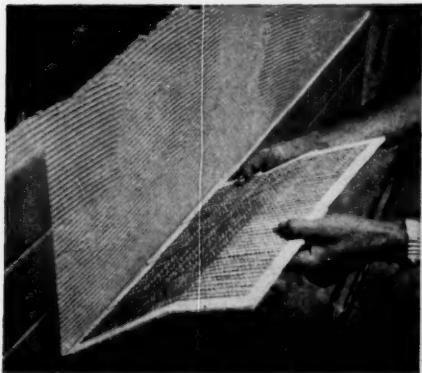
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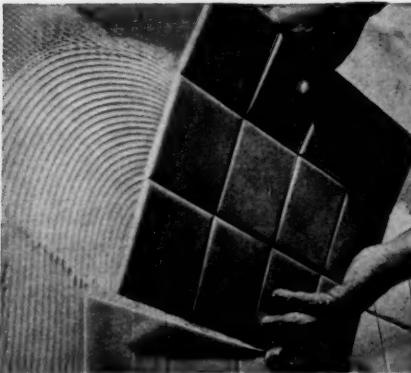
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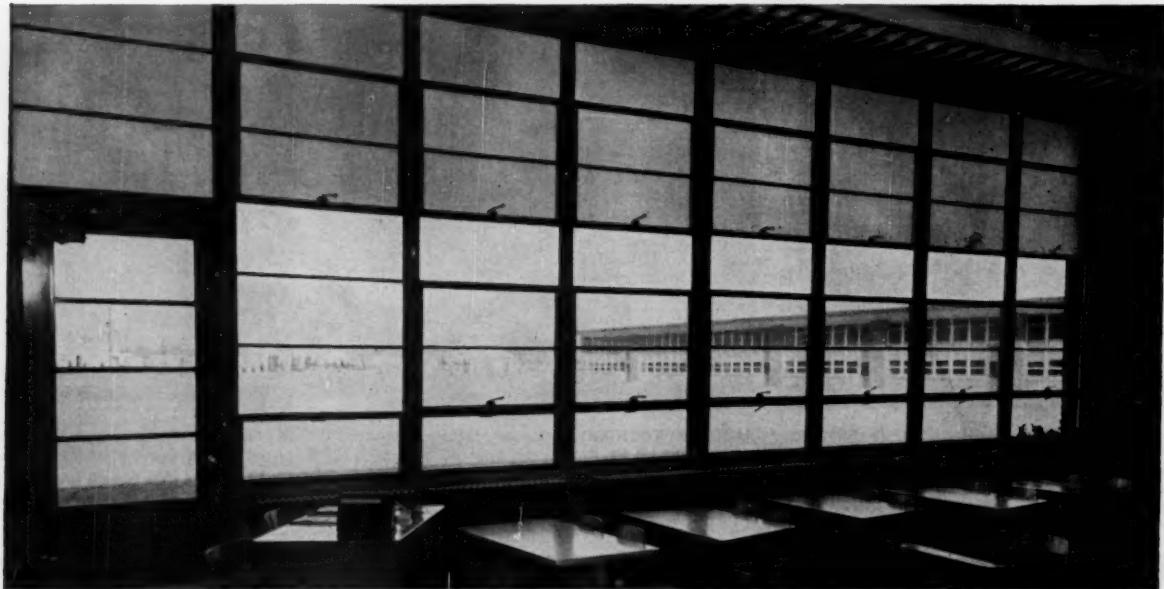
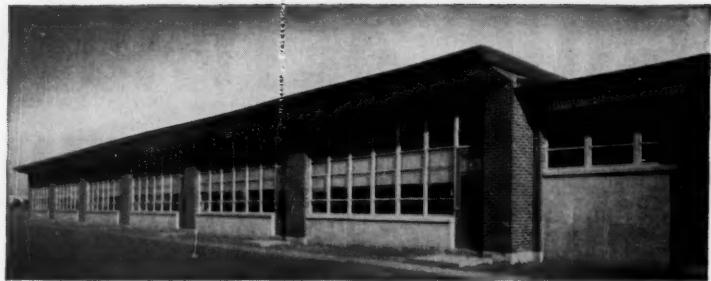
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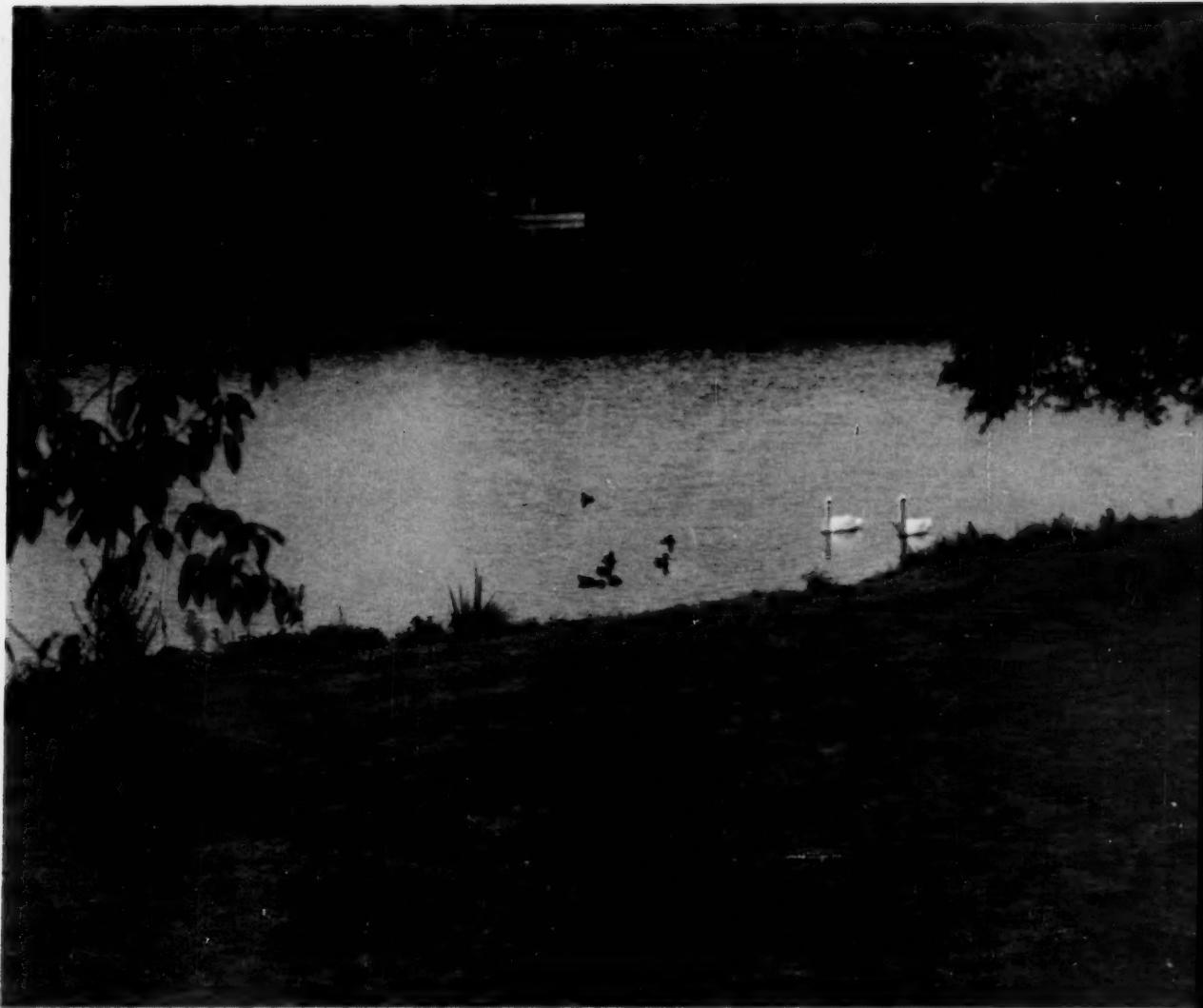
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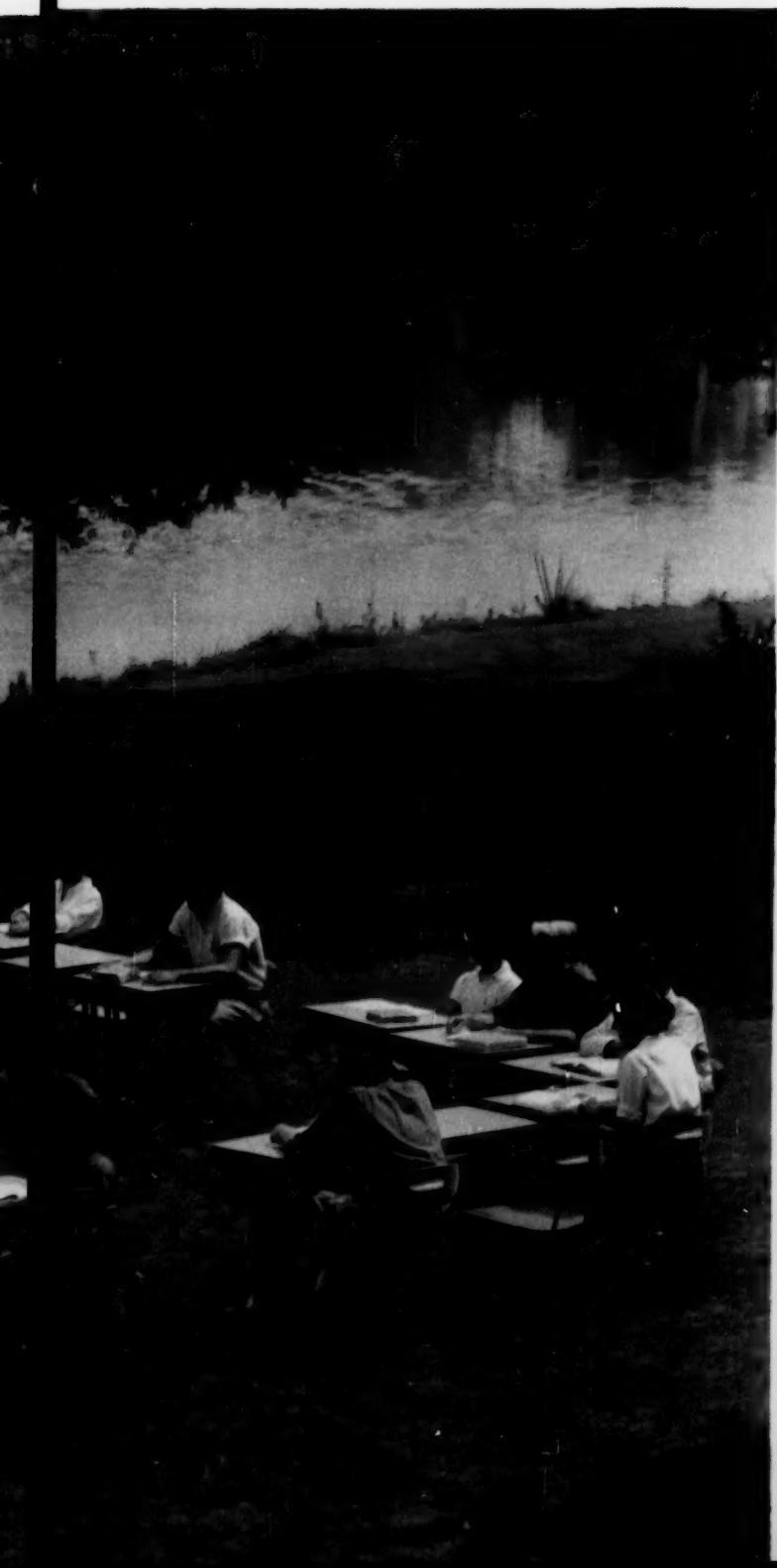


Yes, if classes were held in the open like this . . .

You'd buy American



Seating furniture every time!



There are those who feel, and rightly so, that due to the pressing need for more school facilities, economy is more necessary than ever.

They want to put their money to the best use in the most important things first.

So, we put this classroom outdoors to focus attention on good seating. And to remind you that teachers and students *use seating more than any other item.*

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American Seating furniture has more postural advantages and more structural features than any other make of school furniture. And it lasts much longer. Consequently, American Seating furniture is the most economical furniture you can buy.

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Have you seen a demonstration of American Seating fine school furniture lately? If not, let an American Seating representative give you a private showing in your own office. Also, let him tell you about our greatly expanded facilities which enable us to give you the finest service ever. American Seating Company, Grand Rapids 2, Mich.

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There's no better way to suggest freedom—and comfort, too—than with an outdoor scene like this, showing beautiful American Seating furniture. You can have this same comfort and beauty in your schoolroom—from kindergarten through college—with American Seating fine furniture. Our Classmate line is shown here—one of our many lines.

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This silicone-floating glide automatically adjusts to the slightest unevenness in schoolroom floors. It permanently eliminates the slightest tendency for the table to "rock" . . . insures a level working surface for students at all times. No other school-seating maker can offer *you* this exclusive feature.

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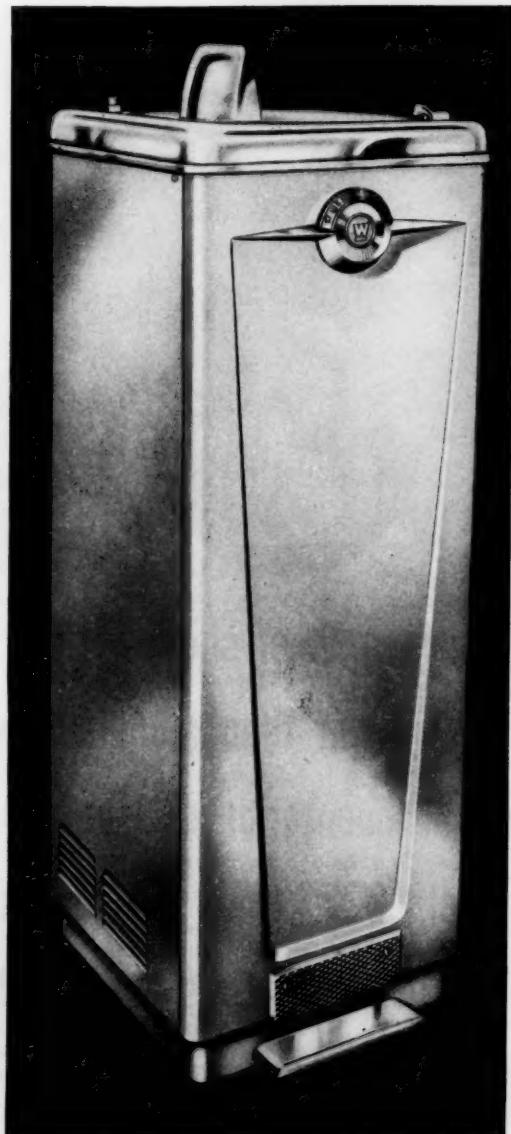
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MAKE THE MODERN CHOICE IN WATER COOLERS . . . WESTINGHOUSE! For complete information write to Westinghouse Electric Corp., Electric Appliance Division, Springfield 2, Mass.

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Summer gives you an ideal chance to put your gym floor—in fact, *ALL* Floors—in top condition for Fall. Planning your summer clean-up *now* will insure best use of this opportunity.

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Why sand away your flooring, when you can strip the finish?

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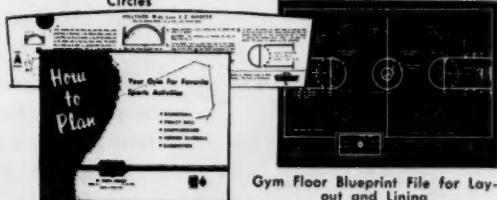
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Vision-Vent installations such as this now can be specified with exclusive new Truscon Supercoat Finish to eliminate field painting. Pictured is Activities Building, Georgia Training School for Girls, Adamsville, Ga. John J. Harte, architect. Abco Builders, contractor.

Install without
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Save off
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7 Colors!

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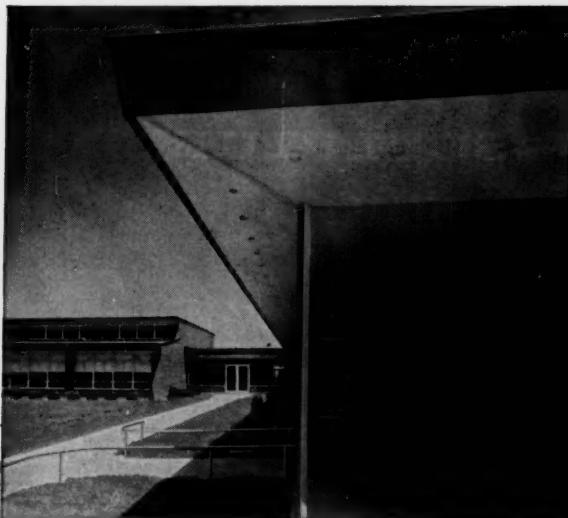
Now, you can get the solid strength of steel for curtain walls and windows and save field painting costs, too. New Truscon Supercoat Process is factory-applied to eliminate all field painting . . . both at installation and during the years.

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With Truscon Supercoat and Vision-Vent Window Walls, there is no need to sacrifice strength and solidity in walls and windows simply to avoid painting. Supercoat Process can be furnished now on specification for all Vision-Vent types . . . as well as in factory shipment on all Truscon Steel Windows for commercial, institutional, and industrial construction. Choice of seven colors.

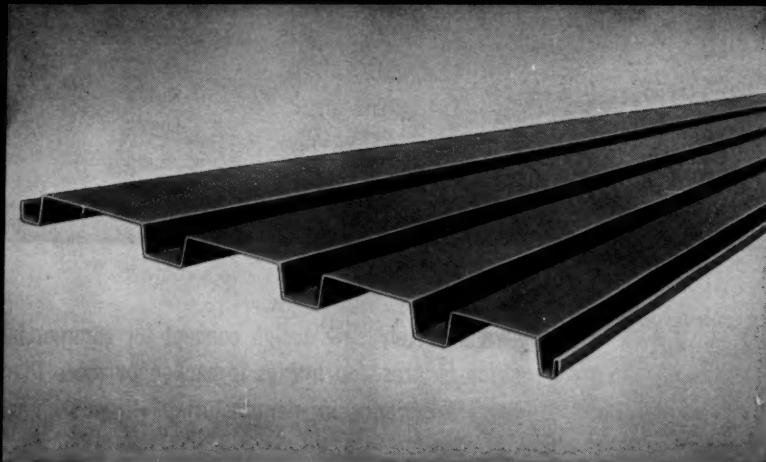
See Sweet's (17b/Tr) or send coupon for Supercoat booklet. Supercoat sample on request.



IDEA! CONSIDER SQUARE WELDED STEEL TUBING. For columns, supports, mullions, rails. Pound for pound, tubing is strongest of all structural shapes. And, square tubing gives a handsome, contemporary architectural effect. Republic's Steel and Tubes Division pioneered the manufacture of electric resistance welded steel tubing—can supply ELECTRUNITE® brand in squares up to 4 inches . . . and innumerable combinations of rectangular sizes in peripheries up to 16 inches in various wall thicknesses . . . out of local distributor stocks. Send coupon for reference data.

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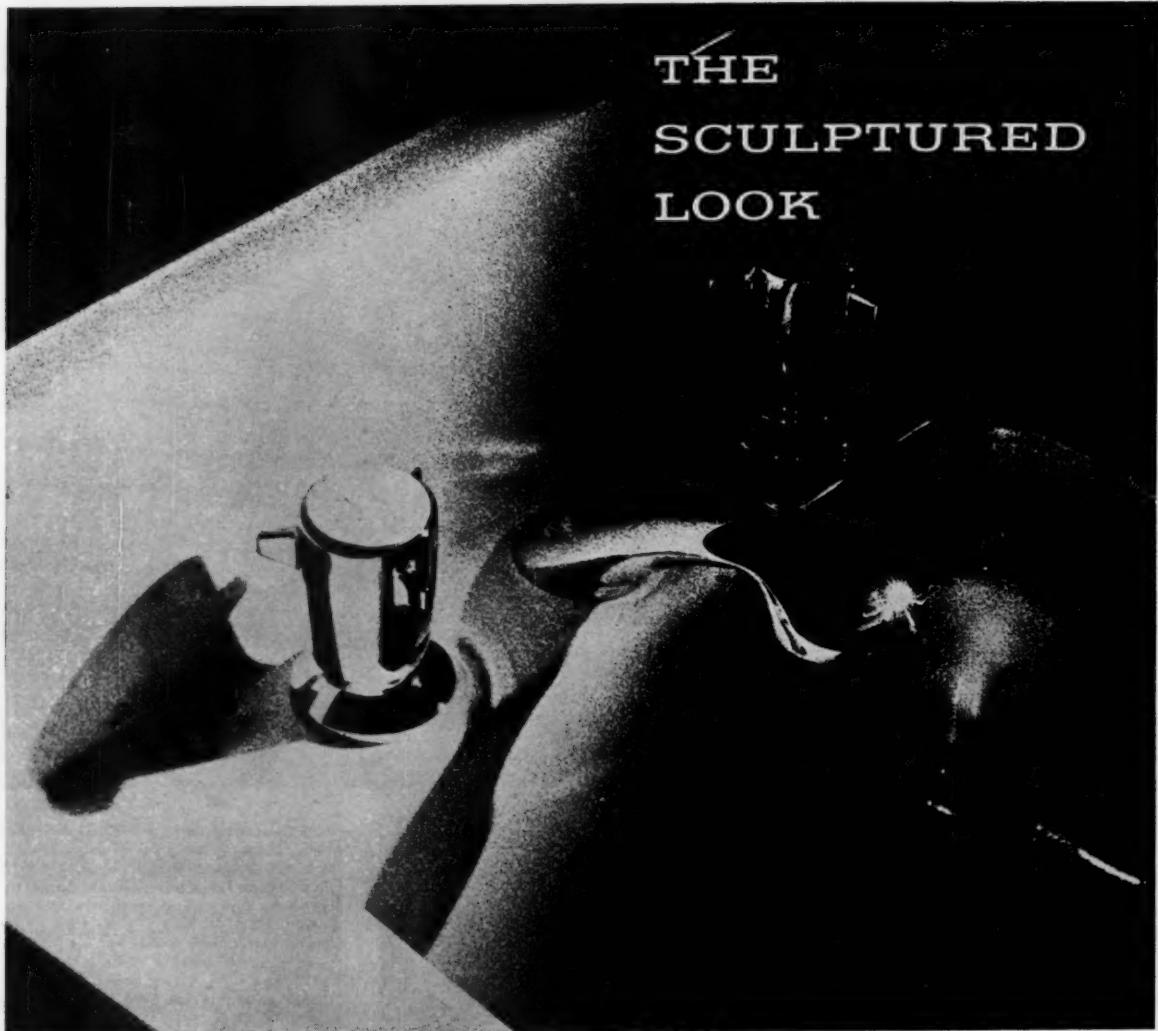
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Now, Briggs brings to its new line of commercial plumbing fixtures and fittings the contemporary look of sculptured form. Each unit and fitting, designed by Harley Earl, Inc., incorporates the same clean, simple lines—giving your plans a continuity of design. And the entire line is backed by more than 70 years experience in producing fine vitreous china of constant quality. Available in Briggs six colors or white. Complete specifications are available to you on request.

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In the design and production of any type of School Furniture, experience and "know-how" are most important. This is especially true for the most practical and effective approach in the manufacture of **tubular steel** school furniture. Virco Manufacturing Corporation and its top management team together have over a **quarter century** background in the designing and manufacturing of tubular steel furniture and almost a decade in the production of tubular steel school furniture. Furthermore, the wide acceptance by School Districts of Virco School Furniture is proof of the correct design, engineering and construction of this fine tubular steel school furniture line. Again, we repeat—that in tubular steel school furniture—**One Stands Out**—Virco. For a free Brochure showing the complete Virco School Furniture line, write to: Virco Manufacturing Corporation, P.O. Box 44846, Station "H", Los Angeles, California or Virco Manufacturing Corporation, Conway, Arkansas.

VIRCO



ther'mal
refers to:

- (a) ventilation
- (b) heat
- (c) a vacuum
- (d) temperature

Try this American Blower Vocabulary Quiz

HINT: NESBITT SYNCRETIZER with Wind-O-Line provides perfect *thermal* comfort!



THE CORRECT ANSWER is "of or pertaining to heat," and thermal comfort in your classrooms is assured when you install the attractive Nesbitt Syncretizer with Wind-O-Line Radiation.

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Result: well-heated and -ventilated classrooms,

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Looking Forward

Wrong Emphasis

SELLING educational TV on the basis that it will cut the cost of education may appeal to some uninformed taxpayers, but it only alienates teachers and administrators who know that "it just ain't so." Those of us who believe that television *can* and *will* improve the *quality* of instruction (and the number is growing daily) greatly regret that some commercial interests are hurting their own cause by the manner in which they try to sell their product to the profession.

This conflict came into sharper focus last month at a conference that was sponsored by the National Association of Educational Broadcasters and the U.S. Office of Education.

"A new sense of urgency dominated the three-day meeting," reports Edgar Fuller, executive secretary of the Council of Chief State School Officers. "Organizations involved financially and educationally in classroom television experiments made extravagant claims of teaching effectiveness, with overtones for administrators and the public about economy, reduction in the number of teachers, and the better use of school and college facilities. Educational broadcasters were impatient with teachers and administrators who are not convinced that they should replace classrooms with assembly halls wired for television.

"Apparently," continues Dr. Fuller, "the new urgency stems from the belief that the post-sputnik period of national reappraisal of the schools offers a rare chance for educational television to prove itself. Others believe, however, that gradual growth is preferable, and that crash programs leave educational debris.

"The use of television in education has made great strides since 1950, with 32 educational stations on the air serving millions of people. Closed-circuit television is being used in hundreds of schools and colleges for special purposes. This record of progress could not have been made without exceptional cooperation from educators."

The opposing schools of thought were represented by two capable spokesmen at the conference. William G. Carr, executive secretary of the N.E.A., told the conference: "Television can make its greatest contribution by helping to improve the work of the teacher. I would suggest that you put out of your minds the idea that television can somehow get around the teacher shortage." He then reported that the supply of teachers has improved during the last two or three years, and expressed his conviction that this country

can well afford a teacher in every classroom of average or reasonable size.

A firm believer that television can be used effectively to *increase* class size and to bring about other changes in the curriculum is Alexander J. Stoddard of the Fund for the Advancement of Education, a former superintendent of the Los Angeles public schools. The Fund is now conducting experiments in several states to determine the effectiveness of televised instruction for groups of from 75 to 500 students of all ages, with one or more teachers in the classroom.

"Television is a revolution," said Dr. Stoddard. "The amount and quality of curriculum content already involved in this large class television procedure is having a stirring influence on rethinking much of the curriculum scope and content and quality, as television breaks the curriculum boundaries set by traditional limitations on communication." Dr. Stoddard believes that in the small classroom the teacher "is sometimes too available." He recognizes the small classroom arguments for student participation, reciting, discussion between pupils and teachers, remedial reading, testing and attention to individual needs, but he still believes that these goals "can be resolved to a very considerable degree and extent" in large classes using television.

There appeared to be general agreement at the conference, reports Dr. Fuller, that the use of TV in education should be determined by its effectiveness in extending the scope and improving the quality of learning.

We think the real value of classroom television in the near future will be somewhat greater than envisioned by Dr. Carr and considerably less than anticipated by Dr. Stoddard. There is no reason to assume that all class sizes must stay small and that the teacher-pupil ratio for most situations must be no more than 25 to 1. Television already has demonstrated that it can teach certain subjects effectively to much larger groups. But such teaching involves not only the expense of studios and closed-circuit facilities but also the employment of extremely competent personnel who are allotted a great block of time in which to prepare their teaching presentations. There are indications that TV teaching of some subjects, especially the sciences for which extensive demonstrations can be set up in the studio, definitely has improved the quality of instruction. For most of these situations, however, the follow-up must be made in smaller groups under the guidance of the classroom teacher.

In an address before the convention of the National School Boards Association in Miami Beach recently,

the president of a large corporation reported that his company had spent \$50 million on the development of black-and-white TV and more than \$100 million on color television. "In a sense," he said, "the schools are beneficiaries of these investments because they now have a solid foundation on which to advance."

Educators are extremely grateful to industries for their efforts to adapt television for school and college uses. But their investments will bring greater benefits if they will concentrate their sales promotion on the potentialities of television to *improve the quality of instruction* rather than argue that TV can solve the classroom and teacher shortage.

In All Dimensions

ARE you in a mood to think about your troubles with the press (and don't tell us you never have problems with the press)? If your answer is affirmative, you'll find solace and sagacity in an article by Harry Ashmore, executive editor of the *Arkansas Gazette*, in *Harper's Magazine* for June.

From the nation's most honored newspaper editor, such statements as these merit further reading: "Somehow as we improve the mechanical means of communication we are losing the fundamental ability to communicate; we're talking more, that is, and saying less.

. . . We are no nearer to a solution of the fundamental problem that has faced us since the invention of printing, namely, how to present the day's events in meaningful perspective." Indeed, he says: "In some important ways we seem to be moving in the opposite direction."

Mr. Ashmore asks for *depth* in news reporting. He believes a news story should be told "in all its dimensions." He talks about what reporters *don't* see, and he uses the Little Rock story as a case in point.

Praising the army of journalists who covered the story, giving them credit for industry and courage and technical competencies, he concludes: "Over a period of weeks they did a reasonably accurate job of reporting what happened at Little Rock—but they failed to tell *why* it happened."

Editor Ashmore tells "why" he thinks it happened. Then, commenting on "the conspicuous failure of the press to take due note of the troubles that were shaping up in the South," he concludes: "I suspect that it stems rather from the limiting journalistic axiom that what happens is news, and what doesn't isn't."

Although his indictment covers all kinds of news reporting, it seems especially true of much that appears in newspapers and magazines today on the subject of public education. A superficial comment or criticism is made about some incident or development in the school program, and the reading public is pushed into hasty conclusions. The experienced reporter knows there is a story back of every story. But perhaps he is reluctant to explore the incident in all its dimensions because some of the sensationalism of the story will be modified, or even changed.

Mr. Ashmore is a 1958 Pulitzer Prize winner, and the author of "Epitaph for Dixie," said to be one of the best of the recent books about the South.

What he has to say about reporting may not solve your own problems the next time the reporter phones

or calls, but it may give you an occasion to discuss this editorial with him.

To his fellow journalists the executive editor of the *Arkansas Gazette* says: "We have got to get over the notion that objectivity is achieved by giving the sinner equal space with the saint—and above all of paying the greatest attention to those who shout the loudest. We've got to learn that a set of indisputable facts does not necessarily add up to the whole truth."

"Perhaps what we need most is to recognize that news is not merely a record of ascertainable facts and attributable opinions, but a chronicle of the world we live in, cast in terms of moral values."

In whatever way you and I can influence the press, whether by direct contacts with its representatives or as buyers of newspapers and magazines, we can make our influence felt by insisting, in the words of Ashmore, that it is "journalism's unfulfilled responsibility to somehow provide perspective and continuity—to add the *why* to the *what*."

An Attack on the People

A BIG blast of buckshot will catch a few sparrows. Likewise the voluminous blasts by Arthur Bestor, the University of Illinois history professor, will hit upon a few truths or half-truths.

We're back on this subject again because of a comment from the principal of a parochial high school in Michigan. He writes: "In my opinion your editorial, 'Bestor Is Back,' does little credit to us educators. It reads too much like the very thing you condemn—propaganda."

Our critic is not alone in his defense of Professor Bestor. In the opinion poll conducted at all three of the A.A.S.A. regional meetings, 10 per cent of the respondents reported that they liked Bestor, 50 per cent said they definitely disliked him, and another 33 per cent said they could "take him or leave him." The other 7 per cent ventured no opinion.

Our objection to Dr. Bestor is that he is attacking the fundamental principles of public education in this country. He is denying the American tradition that every child should have an opportunity to develop his inherent capacities.

Whether you admire or condemn Bestor and his fellow classicists, you will find a challenging discussion of the "academicians" in the article this month by Arthur Corey, executive secretary of the California Teachers Association.

Dr. Corey believes that critics like Bestor are striking back because their own philosophy is "losing ground to the realities of life." They largely "ignore psychological findings and refuse seriously to consider the problem of the slow learner." And, concludes Dr. Corey: "The American people must be made to see that the classical attack is an attack on them. It is fundamentally the rights and welfare of the people that are under attack and not the 'educationists.'"

The Editor

The NATION'S SCHOOLS

THE FABULOUS STORY OF LAS VEGAS, the gambling capital of the nation, is known from coast to coast, but seldom does one hear about the struggle of the school system to serve the community that has grown around it. Every time a big, new multimillion dollar hotel is opened on the 5 mile Strip, and there are now 14 of them, it brings employment for 500 or more persons and results in enrollment of 400 or more children in the public schools. The story of the Clark County school district, of which Las Vegas is a part, is the epic of a tremendous struggle to finance and administer a school system of almost unbelievable contrasts. The editor tells the story, based on personal observations and a visit with the superintendent.



HOOVER DAM, 60 stories high, backs up the Colorado River to form Lake Mead, which is the largest of all man-made lakes in the world.



WEIRD red sandstone formations in the Valley of Fire, near Overton.



GAMBLING in Las Vegas centers on Fremont Street. This street claims more neon lights than Times Square in New York.

ANOTHER TEST IN NEVADA

An interview with R. GUILD GRAY, Supt., Clark County, Nev.

NEVADA is a testing ground for education as well as for atomic energy. Its Yucca Flats test the power of atomic bombs. Its public schools in Las Vegas and Clark County are testing some of the nation's hopes and theories in school administration. This relatively new county unit, created by the state legislature a little more than three years ago, has virtually all the problems that could spell disaster for a consolidation of school districts.

Clark County is some 100 miles southeast of Yucca Flats. Within its 8000 square miles are 14 former school districts, as diverse as one can find anywhere in this country. One of these former districts is the city of Las Vegas, the gambling capital of this nation.

Just a 30 minute drive southeast are Boulder City and Hoover Dam, which more than 6 million tourists already have visited. Eighty-five miles to the northeast, and still in Clark County,

are agricultural communities settled many years ago by followers of Brigham Young. These Mormon territories were virtually isolated from all communication until modern highways brought them into contact with the world through the automobile.

At the edge of Hoover Dam, the tremendous hydroelectric project on the Colorado River, is Boulder City. Here the homes are built on land leased from the federal government. Police, fire, roads and the general maintenance of the city are handled through federal agencies. Here no taxes are levied on real estate to help support the public schools, and yet the schools operate not as a unit of the federal government but as a part of the school system of Clark County. Federal aid is received through Public Law 874, and a little local support from a tax on personal property.

Extending northwest from Las Vegas are a few threads of highways

leading school buses to isolated mining communities, which in and of themselves can provide little educational opportunity for the children of the few families who still live there. Far to the south of Las Vegas are more sand and rock and a few lingering mining towns.

Nor are these the only problems.

"It isn't distance alone that makes the diversity," commented R. Guild Gray, superintendent of Clark County, as we were driving the 85 miles over desert country from Las Vegas to the Mormon communities beyond Lake Mead. "We have just as many variations within Las Vegas. There is one area," he said, "where most of our Negroes live. Indians live on a reservation in the middle of town. There is another residential section where many of our scientists and engineers for government projects have made their homes and from which almost every child goes to college."

OUTSIDE OF THE CITIES, Clark County has seven elementary schools which incorporate kindergarten through sixth grade. There is a one-room school at Searchlight, a mining town; a two-room school at Goodsprings, another mining town, and one at Sloan, where lime is manufactured. The military base of Indian Springs has a three-teacher school and the gypsum mining town of Blue Diamond has a four-teacher school. Keganville in the Moapa Valley enrolls about a hundred children, served by four teachers. The six principal high schools in the county are in Las Vegas, North Las Vegas, Henderson, Boulder City, Overton and Mesquite.

Complicating this attempt to integrate and operate a large school district is the fact that 94 per cent of all the land in this huge county is federally owned. Much of it is rock and sand. Here, then, is a consolidation project in which an overwhelming proportion of the land does not contribute to the operation of the schools, *except* through Public Law 874. The federal allocation to Clark County this year totals \$396,894.69. About one-fifth of all the students in the county are in federal impact areas.

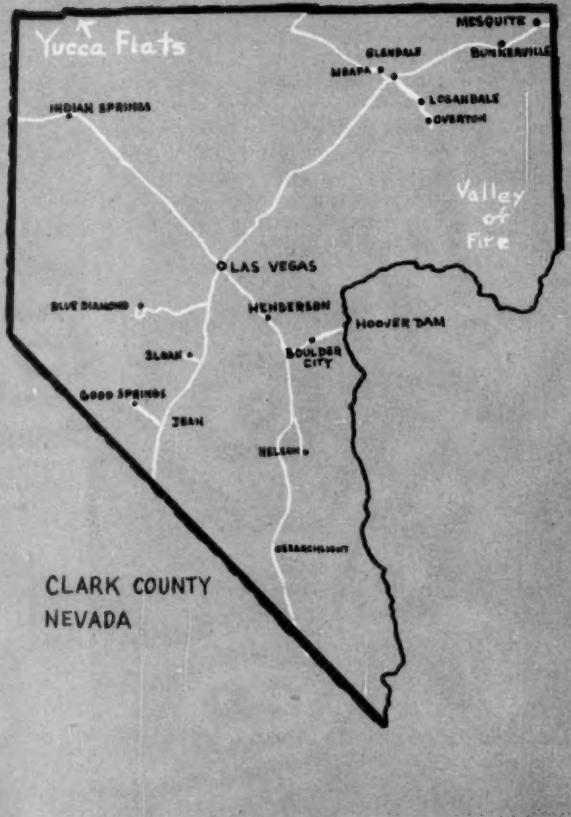
Indirectly, the schools benefit from a special federal grant to the state of Nevada of a lump sum of \$300,000 annually in lieu of taxes. Of this amount, Clark County schools get about 8 per cent or \$24,000.

Other communities bring more problems requiring adjustment and recognition—the debts and ambitions of a booming city, the exclusiveness of federal projects, the despair of dying mining towns, and the local pride of closely knit agricultural colonies.

After our "seeing is believing" review of all these problems, we asked the superintendent a question that we later asked board members: "Is it really worth all this effort?"

"Yes," said Superintendent Gray. "I think it is. Without this larger taxing and administrative unit, it would be impossible to bring to the children of some of these communities—especially the outlying agricultural units and the mining towns—a reasonable opportunity for education."

"And do you think it can be done successfully?" we queried.



"Yes, it can, if the school administration and its policy making board are wise enough to recognize differences among and between communities and to administer a program accordingly. We can do it if the administration will be flexible enough to recognize and meet the specific needs and interests of the various communities within the district."

And the same answers, in substance, were expressed by board members. One of the guiding principles adopted by the Clark County school board reads:

"It shall be the aim of the board of education and its administrative staff (1) to provide every public school child in the county, regardless of place of residence, an educational

program equal to the best that can be found in a comparable environmental situation, and (2) to provide an educational program which will preserve the desirable customs, institutions and resources of each community, and to use and strengthen these in the interest of an educational system which will contribute to the cultural, moral, social and economic growth of the community and the county."

THE CHIEF ADMINISTRATOR for Clark County's schools, R. Guild Gray, is a product of Nevada's public schools. Says Superintendent Gray: "To understand Clark County school problems and Las Vegas, one must know something about Nevada."

"The present boundaries of Nevada enclose the heart of a formidable desert. Of all the states, Nevada's soil was the last to feel the feet of white men. From 1826, when Jedediah Smith, a trapper-explorer, skirted the desert near what is now the eastern boundary of Nevada, until 1849 the area was known to only a handful of trappers, explorers and immigrants."

"Most of Nevada might have remained a part of Utah had it not been for the discovery of silver a few miles from Genoa. The news reached the California gold miners in 1859, and a



R. Guild Gray, superintendent for Clark County, was born in Illinois, but moved to Nevada and attended public schools there. His bachelor's and master's degrees are from the University of Nevada. He received his doctor's degree from Stanford University June 15, 1958. Dr. Gray taught in Las Vegas and Reno, serving as principal in Reno. He was a lecturer at the University of Nevada, superintendent for Yering County, and curriculum coordinator, Contra Costa County, Martinez, Calif., before becoming Clark County administrator in 1953.

silver rush began, which changed the future of the Great Basin.

"With the experience of only three years under territorial government, with a population of fewer than 20,000 Indians and white men, and with only one basic economy (mining), Nevada became a state in 1864. And ever since it has been a constant struggle for Nevada to develop an economy to support a state government and the institutions which the American culture demands.

"By 1879 the 'Age of Silver' in Nevada had passed. The lumbering industry ceased with the closing of the mines, and ranching became less profitable because of the long distances to new markets. The assessed valuation of the state dropped from \$53 million to \$20 million. There was even talk of annexation to California.

"For more than 20 years, a great depression settled over Nevada. Then in 1900 came the second mining boom. A rich silver lode was uncovered in the center of the state and was followed shortly afterward by a rich gold strike a few miles south. Many other discoveries were made, the most important of which were the great copper deposits at Ely, which are still basic to the economy of the eastern part of Nevada.

"Reno, a town that had been laid out on the first railroad across Nevada,

had grown to be the state's largest community. At about this time, another industry developed which added greatly to the economy and particularly to the wealth of Reno. Easterners began to find Nevada a convenient place to sever marital ties. They could go to Nevada for a few short months, become citizens, get divorces with few questions asked, and return home.

"Reno, the pleasantest place to live in Nevada, became the divorce capital of the nation. This so-called divorce industry, along with new railroads, irrigated farm lands, ranching and the renewed mining activity, finally gave Nevada a more diverse economy and another period of prosperity. Between 1900 and 1913, the assessed valuation of the state increased 400 per cent.

"Between 1910 and World War I, the state enjoyed a steady growth. The population had reached 80,000 and the conservatives began to dominate the politics of the state. A test of strength came in 1910 when the legislature, after a bitter struggle, made gambling illegal.

"In an effort to reduce the effects of the Depression, the legislature in 1931 legalized gambling again. And while liberalism was in the saddle, it also modified Nevada's divorce laws, reducing the residence requirements to six weeks.

"Another business that brings in easy money has taken its place alongside the tourist, gambling and divorce industries. Thousands of couples now come to Reno and Las Vegas for quick marriages. In one year as many people were married in the state as there were permanent residents.

"Nevada today is in a period of boom. Its income per capita is greater than that of any other state. The population has pushed past 200,000. Reno's position as the largest city has been lost to Las Vegas, 400 miles to the south. The story of Nevada for the last 20 years is the story of Clark County and Las Vegas.

"Clark County is now one of the fastest growing areas in all southwestern United States. The new postwar jet and atomic ages contributed much to this growth. A permanent jet pilot training center now furnishes employment to a city of civilians and military personnel. The vast expanse of desert to the north is an atomic test site, and this activity furnishes employment to hundreds of professionally and technically trained people.

"Henderson, which the government built, is now the center of Nevada's industrial activity. Products include titanium and jet fuel.

"Today, there are as many people in Clark County as there were in the entire state of Nevada 15 years ago, and they still are coming."

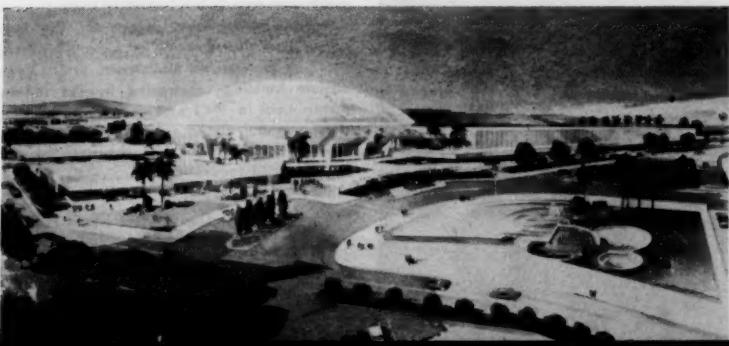
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CLARK COUNTY is still an isolated area in the state. No railroads directly connect towns in Clark County with other communities in Nevada. Four hundred miles of desert separate it from Carson City, the state capital. The nearest Nevada town with more than 1000 people is some 200 miles away.

Superintendent Gray reports:

"In 1952, 90 per cent of the school budget in Las Vegas was for salaries. In 1953 the school budget could not be balanced. One-fourth of the children were going to school only a half day, and another fourth were crowded into discarded army barracks and other inadequate facilities. The legislature slightly increased state school apportionments this same year.

THE STRIP, famous for gambling and night clubs, is 5 miles of pavement bordered by hotels, motels, and surrounded by desert. Fourteen luxury hotels, 245 motels, and 31 commercial hotels in the Las Vegas area can accommodate 12,000 visitors daily, reports the chamber of commerce.



LAS VEGAS hopes to be the Atlantic City of the West. Now under construction is this exhibit hall, to have a seating capacity of 8000 and to be completed within two years.

but refused to take real positive action, even though it was told that the Clark County schools could not operate on the funds allowed. In 1954 the governor had to call a special session of the legislature. Enough money was allocated from the State General Fund to keep the county schools going for a year, and a citizens school study committee, which had been appointed by the governor, was given funds to employ consultants.

"By 1955 inflation had placed other school districts in a critical condition. The legislature acted. Every school district in the state was abolished and 17 districts were established—one for each county. A sales tax was enacted and state aid for schools was greatly increased. Money was now available, but Clark County, with 40

per cent of the children in the state, was faced with the difficult task of consolidating its 14 school districts serving 22,000 children scattered over 8000 square miles.

"Fortunately, the long period of school crisis had taught Clark County political subdivisions how to cooperate and had forced its school boards to try to make the wisest use of every tax dollar received. This experience has been of great assistance in the solution of county school problems."

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TODAY, the county district encompasses several distinct cultures. Boulder City is a community of professional and highly trained technical workers. It is a government town. It has no gambling and to sell alcoholic beverages is illegal. Virtually all of

the children attend colleges and universities after graduation from high school.

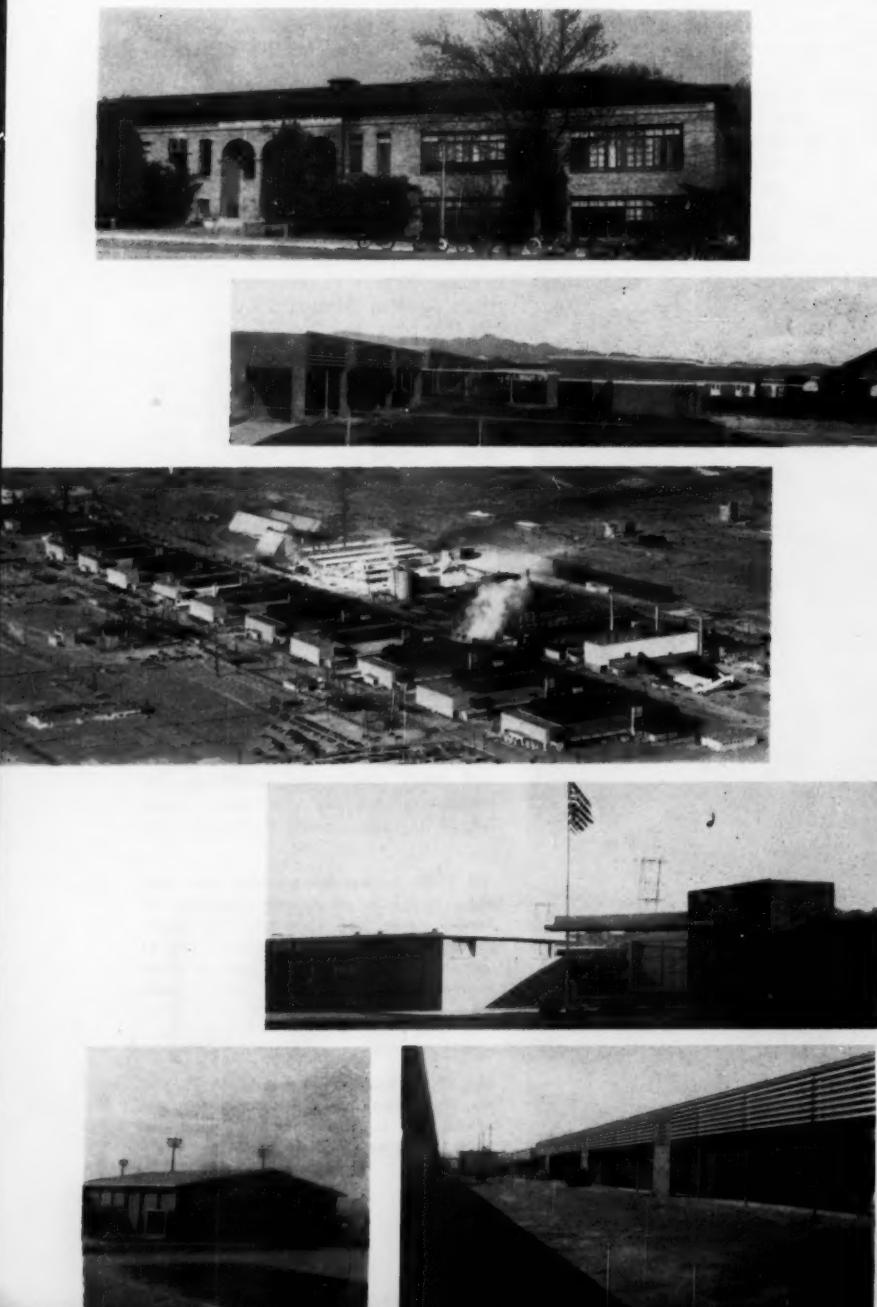
Henderson is an industrial city. Its plant managers and businessmen live in Las Vegas. The nearness to the large markets in Las Vegas, only 14 miles away, has kept big business out of the community; it is a city of low cost houses inhabited by industrial workers. Gambling here is greatly restricted.

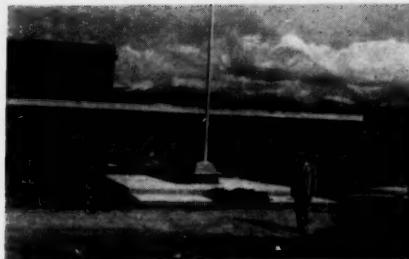
Las Vegas is a cosmopolitan city. The wealth of the southern part of Nevada is concentrated here and lives alongside the gamblers and thousands of service workers employed in the resort business. In addition to being the shopping and wholesale center for the county, it is also the center for the electronic and other highly technical work connected with the Atomic Energy Commission. This is the 24 hour "liberal" community.

The Moapa and Virgin Valley schools in the northeastern corner of the county contain an agrarian culture, and most of the people belong to the Church of Jesus Christ of Latter-Day Saints. The four towns in these two valleys—Overton and Logandale in Moapa Valley and Bunkerville and Mesquite in Virgin Valley—are as different from Las Vegas as is a New England village.

The varied interests of Clark County communities are represented on the school board. Explains Dr. Gray:

THIS ELEMENTARY SCHOOL in Boulder City (top left) was constructed with funds provided by special congressional appropriation. It originally housed both elementary and high school grades. Boulder City High School (second from top) also was built by special appropriation from Congress. The first public school for Boulder City was provided by the federal government. Construction companies paid the teachers; parents provided books and supplies, and the city manager administered the funds and performed the functions of a school board. The following year the courts cleared the way for the formation of an elementary school district under the laws of Nevada. Later the construction activities decreased but the population stayed, and the school district was virtually bankrupt. Beginning in 1939, the federal government adopted a policy of aid for each child who was a dependent of federal employee. THE INDUSTRIES shown in the center picture are now privately owned, but originally they constituted the Basic Magnesium Plant built in the desert by the federal government in World War II. The elementary school (where the flag is flying) was built in 1952 with a grant from the federal security agency on a site donated by local industries. The high school here (bottom row of pictures) started as 18 classrooms, an auditorium, and a gymnasium building constructed by the federal government in 1942 and deeded to the Henderson school district in 1949. Subsequently, several additions were constructed, financed by local and federal funds.





MESQUITE, 3 miles from the Arizona border, was settled by the Mormons just prior to the Civil War. Isolated for generations, it is now a growing community served by the main highway from Bryce and Zion canyons to Las Vegas. The upper two pictures at the left show the recently constructed elementary school which now serves all the children in the Virgin Valley. The ravine in the lower left picture passes through the new school site, on which will be constructed an athletic field. Expected to be completed by this fall is the new high school (lower right). Many of the facilities, including auditorium, gymnasiums and cafeteria, will also be used by the elementary school which it adjoins.

BELOW is Bunkerville on a quiet, sunny day. The top picture shows the second of the high school buildings constructed at the Virgin Valley High School site in 1923. Below it are shown the school built in 1910, and some students studying at noon hour. Reluctantly but wisely, the people of this community are giving up these buildings to permit their young people the greater advantages of the new schools at Mesquite. The first school in Bunkerville (circa 1880) was made of adobe with thatched roof of reed (bulrushes). By 1902 the people succeeded in constructing a five-room school building of indigenous rock. It was in 1913 that the people of the community sought help from the county.

"The law provided that the original school board of seven members would be elected from and by the membership of the old school boards. Only three could come from the county seat, Las Vegas. Wisely, the members of the old boards chose the other four members from the various cultures of the county, one from Boulder City, another from Henderson, a third from the agricultural areas, and a fourth from the rural and small town group. These seven persons, aware of their emotional involvement in their new problems, engaged outside consultants to help them look at their problems objectively. Edgar L. Morphet of the University of California and Howard A. Dawson, executive secretary of the N. E. A. Department of Rural Education, were brought in from opposite sides of the country. After several days working with the board and school administrators, who also were personally and emotionally involved in the change-over, a consensus of policy and guiding principles was hammered out and a transitional administrative organization chart developed.

"For the first time in history, Clark County schools had a realistic operating budget. The future looked bright except for the lack of school buildings. As superintendent, I outlined a \$12 million building program; this would have required the largest single bond sale in the history of the state.

"The board accepted my suggestion that outside consultants be brought in again, this time to bring impersonal objectivity to a request for school building funds. We called in two specialists from Stanford University, James D. MacConnell, director of the School Planning Laboratory,

and William R. Odell, professor of education. A contract was signed whereby these individuals, together with others at Stanford, would project the school building needs of the county, suggest sites, write educational specifications for new construction, evaluate curriculum, and serve as general consultants for a three-year period.

* * *

ONE MIGHT suppose that revenues from various taxes upon the gambling industry would enable Nevada to provide generously for its schools. But such is not the case. Rather recently, and somewhat reluctantly, the Nevada legislature recognized that it must supplement its revenues by adopting a sales tax, and the sales tax now is the No. 1 source of funds for the state treasury. It is estimated that from 30 to 40 per cent of this 2 per cent sales tax is paid by the 10 million or more people who visit Nevada annually.

Gambling is the second major source as shown in the following table:

General property tax.....	\$2,206,313.17
Gambling tax, licenses.....	6,648,294.65
Liquor tax	920,399.67
Cigaret tax	1,023,736.47
Sales tax	9,914,461.97
All other	4,588,695.58
Total	\$25,301,901.51

The state allocates 36% of its total of these revenues for public school support, such aid this year amounting to \$9,338,710.33. Expressed in percentages, the sales tax provides 39.1% of the state Distributive School Fund; gambling, 26.2%; property tax, 8.6%; cigaret tax, 4.5%; liquor, 3.6%; all other sources, 18%.





OUTSIDE CORRIDOR for classrooms at the new Tom Williams Elementary School in North Las Vegas shows the small windows close to the ceiling. As also in the newly planned junior high schools for Las Vegas, classroom illumination is chiefly artificial. As is true of all new school buildings in Clark County, metal is used almost exclusively in place of wood, since wood deteriorates rapidly in the desert climate. The contract price was \$6.78 per square foot.

But gambling contributes much to education in addition to state taxes. The state collects only a table tax, *i.e.* a gross revenue tax. Counties and cities also collect table fees, license fees, along with an ad valorem tax on property.

Clark County's total operating budget for its schools this year is \$8,701,310. Superintendent Gray estimates that 50% of his district's revenues will come from the county taxes on real estate; 5% from the United States government for federal impact areas; 45% from the general fund of the state.

Asserts Superintendent Gray: "Our operating budget compares favorably with budgets for school districts in other parts of the state, but our building budget has been austere. The need for courthouses, airports, sewers, streets and roads has been a tremendous load on the bonding program of the county. Consequently, schools have had to fight all the way for building dollars in competition with the other political subdivisions."

Dr. Gray reports that a bond selling schedule has been worked out among county, school district, fair, and recreation boards, which has brought about a wholesome feeling that the school district is not trying to impede the progress of other political subdivisions.

The manner in which the school administration has spread its school dollar to meet the tremendous need for school facilities reveals rather unique teamwork by laymen of the community. School architects, contractors and suppliers have contributed know-how and reduction in fees.

Prior to engaging the educational consultants from Stanford University, the newly organized Clark County school board held a conference with the architects of the county. The board offered to award all school construction work to local architects but reserved the right to choose the four or five firms that it considered most qualified. The architects agreed. Soon thereafter, the Stanford team of consultants was engaged to provide the educational specifications for the building program and other counsel. The architects then agreed to reduce their fees to assist in paying for the services of these consultants.

As an economy measure, it was further agreed that the building program would include several schools having the same basic design, and that each of the architectural firms chosen would be assigned to a particular kind of building. Any duplication of buildings by an architectural firm was to be accompanied by a fee reduction.

Actual schoolhouse construction in Clark County is proceeding on this basis. A different architectural firm has been designated for each of the following types of buildings: elementary, junior high, senior high, and remodeling and additions to existing schools. These architects have met with the Stanford consultants and with local contractors, manufacturers and building material suppliers in day-long conferences to determine the most economical and practical materials an architect might specify in designing these schools.

New buildings now under construction are uniquely adapted to the climate and other geographical char-

acteristics of southern Nevada. For example, the problem of glare from the intensive sunlight is met by a minimum of fenestration, much dependence upon artificial lighting, and extensive use of overhangs or outside corridors. All plumbing and utilities are above ground and in accessible places; partitions are not load bearing and can easily be removed. Classrooms may be enlarged or may easily be changed in size, and heating and cooling facilities can be altered without structural changes.

The school district shares with the city in the acquisition of school park sites and in a joint recreation program.

Protected by an old Nevada law, the city and county planning commissions will not approve subdivision plans until a school site has been provided by the subdivider.

The school construction program now underway is another fascinating story. Unique economies are reported for the two most recent structures, the Hyde Park Junior High School (now under construction) and the Tom Williams Elementary School.

Under the duplication plan, the principal features of the Hyde Park Junior High School are repeated in two other junior high schools being constructed as additions to existing elementary schools in Las Vegas.

Clark County also is determined to have facilities for higher education. Under construction is a branch of the state university on a site donated locally. Meantime, a local high school auditorium serves as headquarters for the branch of the university, with more than 500 persons enrolled.

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SUCH is the story of the Clark County schools, a story of struggle and cooperation and accomplishment. These and other examples of this spirit of cooperation, which kept schools operating and maintained special services at the same time the district was going through a transitional period of reorganization, are good evidence that consolidation can be effected under trying conditions. The new district is providing more services to more schools in the county than ever before. Economies have been effected in transportation, lunchroom management, construction, site acquisition, and purchasing. At present, the transitional administrative structure is undergoing further changes to increase efficiency and to cut administrative costs even more.



HYDE PARK JUNIOR HIGH, now nearing completion, will have counterparts in addition to two elementary schools in Las Vegas. This plan also shows a swimming pool and athletic field to be constructed by the city.



In the multigrade class system, older pupils who finish their work ahead of time take turns coming in to help. These two are finding words in a dictionary.

J. H. HULL

THE one-room school had something. In an experimental program in the unified school district of Torrance, Calif., we have been able to recapture that "something"—increasing the spread and speed of learning through a grouping of grades.

Our three-year study has dealt with the multigrade system, and the results indicate that under this type of organization more learning takes place than under the traditional system of single grades.

In fact, in the three skill subjects scored in this experiment—reading, arithmetic and language—multigrade learning clearly exceeds single grade learning experiences insofar as can be measured by the standardized test procedures available.

Our findings to date further show that, in addition to gains in the three skill subjects listed, the multigrade pupils in 46 out of 48 statistical comparisons showed greater gains in four other areas: personal adjustment, social adjustment, social maturity, and behavior characteristics. In addition, the multigrade pupils have shown a

better attitude toward their school work and toward their peers than have the single grade pupils.

Observations in the Torrance study also indicate that not only have children an improved rate of growth in learning but also there is a remarkable improvement in the quality of instruction and even in the creative personality of the teacher. What's good for one seems to challenge and improve the other.

The originator of the study was Walter Rehwoldt, then director of instruction in Torrance and now assistant superintendent in Barstow,

Calif. Experience as a country school teacher, the frustrations of the graded system, and the desire to find the next step after the self-contained classroom, all contributed to the idea.

Dr. Rehwoldt and I and Warren Hamilton, my collaborator,* had many discussions over a period of a year on the approach we might take. We agreed upon certain points for the protection and welfare of the school district. Welty LeFever of the doc-

*Rehwoldt, Walter, and Hamilton, Warren. *An Analysis of Some of the Effects of Interage and Intergrade Grouping in an Elementary School*, doctoral dissertation, University of Southern California, January 1957.

J. H. Hull, superintendent of the Torrance Unified School District, Torrance, Calif., has pioneered in this experiment of developing a multigrade program. Like many Californians, Dr. Hull is not a native of the state but went there from Colorado. He was a teacher, principal and superintendent in Colorado before moving to Corona, Calif., in 1939. There he was an English instructor and drama coach in the high school and later served as assistant superintendent and business manager of the city schools. Superintendent Hull received his A.B. from the University of Redlands, Redlands, Calif., his master's degree from Colorado State College, Greeley, and obtained his doctor's degree from the University of Southern California.

total committee of the University of Southern California advised on the design of the experiment.

We decided that existing district policy would prevail. This included:

1. The board must unanimously endorse the plan.

2. Participation would be voluntary. Obviously, parent education would be required. It so happened that only one parent meeting was required to establish a waiting list of those who wanted their children in a multigrade.

3. The plan must have potential for improving instruction and for benefiting the children, and it must not lead to excessive costs.

4. The plan must qualify under the existing written policies of the school system, many of which have to do with educational philosophy.

From time to time as the planning for the experiment progressed, we briefed the board of education. Then it made a decision, and in 1955-56 the experiment began at Walteria

In February of this year, the board approved a plan whereby several Torrance schools may carry on the multigrade class organizations on a voluntary basis on the primary and intermediate levels, as is being done at Walteria School. Children will be placed in these classes only upon the request of the parents.

Before this step toward extension of the plan was taken, I called a conference at which were present the principal and all teachers of multi-

Right: Many pupil activities can be guided by the teacher in a multigrade classroom. The third boy from the left leads the reading group while the teacher holds a reading session at another table.

Below: A group of fourth, fifth and sixth graders in a multigrade room work with their teacher at the typing center. These pupils can type up to 50 words a minute after 14 weeks of work and practice.

Bottom of page: The teacher works with a multigrade class of first, second and third graders in a cooperative language arts activity. Such studies have given these Walteria pupils high achievement test ratings.



School. We formed seven classes in two multigrades, with each class consisting of approximately 33 children. The primary multigrade classes—four in all—contained 11 children from the first grade and the same number from Grades 2 and 3. The intermediate multigrade classes—three in number—contained 11 children each from the fourth, fifth and sixth grades.

Teachers for the classes were drawn from a hat containing the names of all the teachers in the school system. Supervision was by the building principal and was the same as that afforded regular grade classes.

MANY REQUESTS FOR CLASSES

Last year, the second year of the establishment of the classes, parental demand was sufficient for an eighth class. In fact, there were requests to fill an additional ninth class, but we did not add one until this year.

grade classes at Walteria and to which were invited several staff members and some of the elementary school principals of the district.

WHAT MULTIGRADE TEACHERS SAY

At this conference we asked the multigrade teachers and the Walteria principal, Don Mullaney: "What do you regard as the most important aspect of the multigrade program?"

Some of the replies were these:

"There is no important difference between a multigrade and a straight grade."

"Individual differences get more attention in the multigrade setup."

"You can go much more into depth and detail with the older and more gifted pupils."

"If you have a multigrade, you'll become a better teacher. It gives you problems; it makes you think. You make the work more effective for all."



Table 1—Mean Differences in Gains Between Multigrade Pupils and Their Matched Partners in All Areas in Which Comparisons of Gains Were Made

Area of Comparison	Grade Level					
	1	2	3	4	5	6
Reading	0.46**	-0.25	0.20	0.14	0.55*	-0.47
Arithmetic	0.30**	-0.21	0.38*	-0.12	0.85**	-0.13
Language	0.25	-0.11	0.17	-0.24	0.11	0.28
Personal Adjustment	2.0	3.1**	4.0	1.8	0.7	0.3
Social Adjustment	2.7	3.9	4.6*	0.2	4.5	5.0
Social Maturity	3.3	11.5*	18.3**	0.3	-13.9	20.5**
Behavior Characteristics	5.9	11.3*	6.5	14.8	21.9*	15.0

*Significant at the 5 per cent level.

**Significant at the 1 per cent level.

Note: The negative differences favor the regular grade pupils.

Table 2—Mean of Mean Gains by Grade Level of All Pupils in Subject Matter and Social Areas in Multigrade, Single Experimental, and Single Grades of Other Schools

Areas	Multigrade	Single Grade Experimental	Single Grade Other Schools
Reading.....	1.1	1.0	1.1
Arithmetic.....	1.4	1.2	1.2
Language.....	1.3	1.2	1.1
Personal Adjustment.....	3.9	2.8	2.0
Social Adjustment.....	2.1	-0.3	1.7
Social Maturity.....	16.5	11.1	7.6
Behavior Characteristics.....	6.1	-1.7	-0.2
Grade 1.....	4.7	4.1	1.4
Grade 2.....	4.7	2.5	2.0
Grade 3.....	5.7	1.9	2.4
Grade 4.....	5.2	1.7	2.5
Grade 5.....	4.2	3.6	2.3
Grade 6.....	3.1	1.8	2.1

"I'm doing nothing that I shouldn't have been doing in a regular grade classroom. Yet what has happened to me is important in terms of professional growth. The solving of problems and the interchange between teachers improve our teaching."

"I've never before done so good a job with bright children."

"After three years as a multigrade primary teacher, I now have more materials to cover the spread of interests and abilities. I would probably teach a straight grade the same way now."

RESULTS IN NEW LEARNING

Another teacher said the multigrade plan results in a spread of activities that causes a lot of new learning on the part of everyone.

We asked the teachers about peer rivalry. They said that after three years it was about the same as in a

regular grade, although tests showed that there was less and the teachers said there was less in the multigrade rooms the first year of the experiment.

All the teachers thought it would be a mistake to drop the program, and most of them didn't know which straight grade they would want to teach after teaching a multigrade.

AVOID COMPARISONS

Principal Mullaney of Walteria School advised against having a minority of straight grades in any school in the district. Under such conditions any comparisons that are made are too easy to identify, and this affects the morale of the straight grade teacher, he declared. As a starter in the other schools, he suggested two teachers at each multigrade level.

"It's more work to administer a school that is divided on a half-and-half basis," Mr. Mullaney declared,

but he admitted that the constant stream of visitors to his school created part of that feeling.

ANALYSIS OF FINDINGS TO DATE

Why do these multigrade pupils have better attitudes, have better personal adjustment, better social adjustment, and even tend to do better work in academic areas. Our study does not provide the answer. Some of the factors that probably have an effect on the findings are:

1. Older children seem to gain from helping younger children.

2. Younger children seem to learn from older.

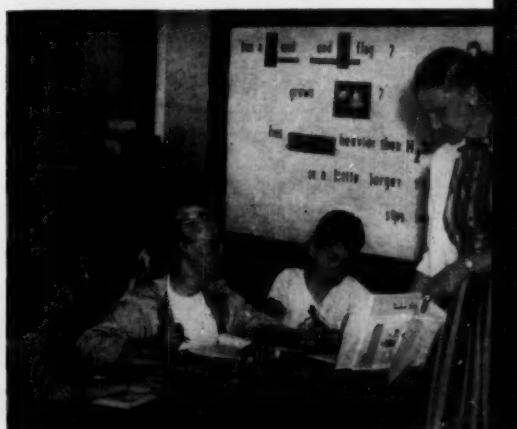
3. Wider range of experiences and interests stimulates all.

4. Teacher attitude when faced with three grades seems to include a do-something-about-it attitude.

5. Peer rivalry may to some extent be replaced by friendly acceptance of difference when the grade level loses its significance through spread of ability and interests.

6. Children gain the advantage of experiencing being in the younger, middle and older group on successive years rather than always having to view the situation from one position year after year.

As Table 1 indicates, so far as the three skill subjects are concerned, of the 18 tests in subject areas, 11, or 61.6 per cent, favored multigrade and only seven, or 38.8 per cent, favored straight grades. Further refinement revealed that of the 11 favoring multigrade, five were statistically significant at either the 1 per cent or the 5 per cent level while none was statistically significant in the regular or control classes. Hence, as far as the



Above: These pupils from the first, second and third grades are being helped by their teacher in carrying out a committee project. Working together is a part of their classwork.



Above: A first grader checks intently a list of names to determine the number of pupils who will get milk for the day.



Above: A third grader is sent by the teacher to help clear up the milk problem. Below: The two pupils working together, count noses and straighten out the difficulty.



experimental and the control groups were concerned, multigrade learning clearly exceeds single grade learning experiences as far as they are measurable by the standardized tests that are available.

The school district, however, was not satisfied with stopping here, so the board of education financed a comparative statistical study involving all six grade levels at six other randomly selected schools in the district. This required thousands of careful computations and produced the following mean gain results shown in Table 2.

PRODUCED BETTER RESULTS

Table 2 shows clearly the same trend that the matched pairs in the experiment produced, namely, that multigrade classroom organization did produce more learning as measured by the testing instruments, both by area tested and by grade level of pupils. This result was obtained with teachers drawn by lot from a regular school faculty, with teachers untrained for specific multigrade teaching, with teachers given no special supervision for multigrade teaching, with pupils unselected and very comparable to the other half of the enrollees.

When only one mean of the mean out of 26 comparisons of single grades shows an equivalent result to the multigrade and all the rest show the multigrade to be superior, it appears that a fact has been established.

It is significant that the one area in which single grades equal multigrade is reading. This is the major area of emphasis in the minds of most school teachers. Reading is the area where grouping and individualized instruction is most highly developed. Reading is the area in which the techniques that have been developed by most classroom teachers most nearly parallel the kind of instruction that naturally develops in a multigrade.

If there is any importance to timing in providing learning opportunities for children, it is not unreasonable to assume that helping children to develop their own rate and timing will produce better results than attempting to make children develop at a predetermined rate and timing, which is exactly what the typical graded school did try to do, in the past at least. This does not mean that alert teachers cannot overcome grade level traditions, but it is more difficult than when they have the multigrade before them.

These results would indicate that there is something inherent in this plan of pupil grouping that educators should consider in organizing a school or in building faculty and parent attitudes, or in both. #

TO BE or not to be is only part of the question. The question—whether school administration as practiced today qualifies as a true profession, distinct in most respects from teaching—includes also some doubt on the part of school administrators as to definition of "profession."

Almost three out of four school administrators who answered the most recent Opinion Poll distributed by The NATION'S SCHOOLS answered Yes, definitely administration *alone* is a profession that is distinguishable from teaching.

UNHAPPY AFFIRMATIVES

Comments made by the superintendents who were queried show that the 70/30 ratio of Yes and No to the question does not reflect whether such ought, in fact, to be the case. Some of the people who said Yes were quick to point out that they said so unhappily; their point was that making the distinction between teaching and administration is to widen what already appears to be a gap in morale between "management" and "labor." Administrators who were on the No side said they would like to answer Yes, but the conditions of school administration in their state prevented them, in all honesty, from giving such an answer.

What are the conditions that both sides pointed to as having something to do with professional status of school administrators? The always-with-us issue of district organization is one. The problems that come from districts which are too small and in which there seems to be a host of insignificant chores work against the administrator who tries to be professional in his work.

Other administrators point to the laxity or complete absence of certification standards (in three states there are none at all, and in more than half of the states the standards are certainly far from rigorous). Important, too, is the need for professional control in the area of approving graduate training programs in colleges and universities.

CALLS FOR CODE OF ETHICS

There is the question, also, of ethics. As a Washington superintendent said: "School administration can't be considered a profession until we agree upon a strict code of ethics." "Would a code of ethical relations between the board and superintendent help me?" asked a Kansas superintendent, who complains that school board members are trying to usurp administrative functions." He described how one of his board members voted against his recent contract because he was spending too much time "as an

PROFESSIONAL STATUS

... OPINION POLL

**Administration alone is a profession
distinguishable from teaching,
say 70 per cent of the administrators**

A nationwide sampling of superintendents' opinions by The Nation's Schools

Summarized by HOLLIS A. MOORE Jr.

Executive Secretary, Committee for the Advancement of School Administration, A.A.S.A., Washington, D.C.

administrator and not doing enough teaching."

Perhaps the most important contribution of the TNS Opinion Poll is the list of criteria for a profession which just naturally comes from the comments of poll respondents. Judging by the comments, at least eight things make up a profession and can be used as a measuring device for educational administration.

EIGHT MEASUREMENTS

1. Admission is based on guarantee of a standard of competence on the part of people who apply.

2. An extra large dose of graduate, professional training is needed. (Several states, along with A.A.S.A.'s Committee for the Advancement of School Administration, go along with two graduate years as the minimum; recent proposals in Pennsylvania propose to push this up to a doctorate).

3. The ultimate purpose of the professional job must be significant service to society at large.

4. A profession is never a stepping-stone to a position in some other occupation.

5. There must be a high salary return to the individual and stature in the eyes of the public. (A New York superintendent observes that the two always go together.)

6. Long hours of work can be expected. ("How nice finally to achieve

executive status so you can work every day in the week including nights and Sundays!").

7. A profession must be a learned calling, based on intellectual study.

8. The duties must be distinctive from those of any other profession and must be known generally just to the persons who practice the professional calling; in other words, if anybody can run a school system with or without special training we haven't arrived yet at the goal of professional stature.

The goal may lie just ahead, however. An optimistic Texas administrator says that "if within the next five years as much improvement is made as was made during the last five years, then my answer will be a definite Yes."

SET ADMITTANCE STANDARDS

An Ohio superintendent who voted No has a couple of good suggestions: "In my way of thinking a profession must first regulate from within its membership for setting standards for admittance and dismissal from the profession. Second, a profession must be able to set its own fees for service and hours of work."

And a boldly scrawled comment from New York leaves us with perhaps the most arresting thought of all: "Who says we have a right even to call teaching a profession?" #

IS SCHOOL ADMINISTRATION A PROFESSION?

Do you think that school administration as practiced today qualifies as a profession, as distinguished from teaching as a profession?

Yes....71% No....26% Yes and No....1% No Opinion....2%



Photo, Dearborn Public Schools

Children of the same age exhibit marked differences in size, weight and ability. Children of a given age vary in their capacity to do school work just as much.

PUBLIC education always has been an arena for controversy. First was the battle over whether we were to have free tax supported schools at all. Next came the battle over who should attend these schools, and more recently the struggle over how much such schools should cost.

Recent events indicate that we are now being engaged in a great public debate over what should be taught in the schools and how it should be taught.

Public opinion today is sharply focused on the curriculum. Any intelligent discussion of curricular problems depends upon philosophical considerations for its ultimate answers. This philosophical background the public and a large segment of the profession do not possess. Those who would now interpret the school program must not only know with some certainty what they believe but must be able to give convincing reasons why they believe it.

The usual defense of the status quo merely infuriates those who disagree with us. We must get below the rather futile arguments over the relative merits of various approaches to the teaching of reading—or the change in emphasis in arithmetic—or the place of grammar in the study of English—to a discussion of what we

From a paper presented before the convention of The National School Boards Association, Miami Beach, Fla., 1958.

ARTHUR F. COREY

The Real

demicians are defenders of the classic thesis.

The classic thesis holds tenaciously to the following five tenets and it is important that we understand them:

1. There is a radical dichotomy between the physical and spiritual realm.

2. Mind is basically a part of the spiritual realm and cannot be understood in terms of material things.

3. The primary function of education is the development of the mind.

4. Man tends to be everywhere and always fundamentally the same. Dr. Hutchins puts this tenet in these terms: "It will be argued that this ignores the most important thing about men and that is that they are different. I do not ignore it, I deny it."

5. Values are very important and are not relative to time or place.

Now if one believes these concepts, one will believe certain things about education. Since man is everywhere the same and does not change, then education itself should change but little from age to age, and education for all men can be quite the same. To most educators these ideas seem incomprehensible, yet they are held by men who are themselves brilliant and well informed, even if not well balanced.

CLASSICISM HAS NO ANSWER

The important fact is that this classic thesis could not cope with Twentieth Century America, and it is fighting an angry rear guard engagement as it retreats. Classicism as a point of view has no tenable answer to the problems inherent in the extension of universal education through the high school. It largely ignores psychological findings and refuses seriously to consider the problem of the slow learner. He is either not admitted or dropped as quickly as possible both in educational institutions and educational discussions.

The classicists have one distinct advantage over many of us who disagree with them. They are not hypocritical. They practice what they preach. In the arena of educational theory the classicists have literally been pushed from the field, but in educational practice they still occupy

Attack Is on Education for All the People

a large and prominent segment of the stage.

The greatest weaknesses in the schools today are the curriculums that are most like our classical critics think they should be. Our colleges and universities (professional schools excepted) are the bulwarks of our critics and are probably themselves the least effective segment in education.

It is time we stopped assuming that public education is perfect. We ourselves must take up the cudgels of criticism. It's time the organized profession and the friends of public education began responsibly to tell the American people what is wrong with the schools.

I suggest that as a beginning we might assert some certain obvious weaknesses:

1. American schools do not actually provide for the differentiated needs of pupils.

2. Educators are content to talk and dream about things as we wish they were, or as they ought to be, and dislike recognizing educational facts as they are.

3. Priority in function in education is almost entirely lacking. Schools can't do everything. What is most important?

4. American schools have accepted too much responsibility with too little resources.

• • •

THERE is no question where the American people stand in the philosophical battle over education. They are on our side. They must be made to see that the classical attack is an attack on them. It is fundamentally the rights and welfare of the people that are under attack and not the "educationists." To clarify this issue

is our most immediate task. This is the imperative immediate emphasis for public school relations.

If those who criticize the schools do so because of *their* philosophy, then we must make clear what our philosophy is, if we are effectively to interpret what the schools do for children. This, in my opinion, we have neglected to do. In this area the issues become really important. The present confusion will degenerate into chaos, unless the public has the information and philosophy upon which to base opinions.

In a recent publication, "The School and Its Program," the Commission on Educational Policy of the California Teachers Association has attempted to make a contribution by enunciating some principles it believes represent the philosophy of the educational profession. The commission believes that we have had difficulty interpreting the underlying principles upon which curriculum and method are based because no one has been able to state authoritatively what the professions believed.

You may not agree with any or all of these principles. This may be unfortunate, but certainly is not the central point at issue. If these statements are not satisfactory, then it is important that we quickly develop some others that are acceptable. Once such fundamental principles are agreed upon, they become the basic material for curricular interpretation for any school system. If the principles are understood and believed by the public, the details of subject matter and method will give us less difficulty.

The public school program is in the last analysis determined by society.

Since 1947 Arthur F. Corey has been the executive secretary of the California State Teachers Association. It is the largest state professional organization of teachers in the nation with more than 93,000 members. Dr. Corey received his bachelor's degree from Whittier College, and his master's and doctor's degrees from the University of Southern California. In 1949 he was awarded an honorary doctor of laws degree by LaVerne College for his leadership in developing the legal and financial foundations of the California public school system. . . .



Dr. Corey was teacher, principal and superintendent in Orange County until 1937. After a year with the U.S. Office of Education, he joined the staff of the California Teachers Association. He is co-chairman of the joint committee of the National Education Association and National Publishers Association. He was a member of the N.E.A.'s Legislative Commission for six years, and is a member of Educational Policies Commission.

are recorded when revision of the school's program could be attributed to the direct influence of educators. In scores of other instances, alteration followed the organization of public sentiment which was brought to bear upon the legislature. This is the approved, traditional American way to bring about changes in the content of education. It should remain traditional and effective as long as these changes do not mean yielding to an irresponsible minority. This manner of bringing about amendment places upon the educator the vital responsibility of serving as professional consultant and educational leader. Any profession would be vigorously condemned that did not take the public into its confidence on matters of public concern and turn to the public with proposed solutions and recommended courses of action. The public is still free to accept the proposals, or reject them, or modify them. The educator must remain free to concur in the decision or to continue to work toward a better solution and a new course of action. To fail to propose is to default in a professional duty."*

The point is that the public school is a servant of our changing culture.

Even though language is our most generally useful instructional tool, direct experiences are commonly needed in furthering learning.

The report states:

"Essential as language is for learning, it nevertheless has its limitations. Language consists of sets of symbols and it is possible to acquire the symbols without grasping the meanings they are supposed to convey. A child may memorize 'six and three are nine,' without understanding the words used or the relationship they are intended to embody. Similarly, a child can memorize the definition of 'sentence' without being able to write a good sentence. Words become useful in thinking and in communication only as experience gives them meaning."*

To be sure, language is our basic medium of communication and therefore is the most important tool in the learning process. The importance of language must not be minimized, but knowledge does not develop by memorizing words.

This necessity for experience is equally applicable to many necessary social skills. The ability to get along with others, which industrial leaders are now telling us is the single most important factor in successful business —this ability to get along with others is learned by actually doing it in a situation where one is helped to do it in the easiest possible way. A good way is in a classroom situation.

All pupils cannot be expected to achieve at the same rate or to the same degree in any learning field.

One might say that this statement is axiomatic. Yet much of the difficulty we're having in public criticism is based on the fact that the public does not yet understand that children of the same age exhibit marked differences in size, weight, strength and ability. To expect all children, regardless of their physical capacity, to jump a given distance or run at a given speed would be absurd, and even the businessman understands that. Children of a given age vary in capacity to do school work just as much. In any type of school work you might wish to mention, children of a given age vary just as much in their capacity to do it as they do in physical size or strength. In some cases more.

Intelligence itself varies as much as does height and weight in a normal fifth grade of unselected students, and when one gets to the ninth grade it's just that much worse because the further we go the more variation we have. In a normal fifth grade of unselected students one can expect to find actual variations in achievement and ability from that normally expected of a 7 year old to that normally expected of a 15 year old. And in the ninth and 10th grades this difference gets to be astronomical. So one child learns a lot faster than the other, and if the teacher does a good job and develops a situation in a classroom where everyone learns to capacity, the longer the teacher teaches the more she compounds her difficulty, because the further apart the pupils are as they progress.

Yet one still finds intelligent businessmen, intelligent laymen, operating on a philosophy of "why don't you set a standard for sixth grade arithmetic and then we'll know what everybody is supposed to do and when they do it you can pass them into the seventh grade."

How one learns is important as well as what one learns.

The attitude of the learner toward learning will ultimately determine the usefulness of that which is learned. You say, why sure this is true, or at least I hope you do say sure this is true, but the public doesn't. The most meaningful learning will be that which arises out of the purpose and interest of the learner and the most exciting learning will be that which the learner seems to discover within himself.

This creative approach to learning is even applicable to a skill like

reading or to mathematics. We get into the area of creative learning when learners are taught how to discover for themselves a facility, a skill, an attitude, a bit of knowledge—rather than merely being told what the word is or what the answer is.

I saw recently in a school art exhibit in San Francisco, a kindergarten boy's picture of a cow. I suspect this boy had never seen a cow, and I suspect that all his life he had been told that cows give milk, you must drink milk, milk is good for you, milk makes you healthy, milk makes you grow. And he even learned what part of the cow gives the milk, because this picture of the cow was a great big udder with a little tiny cow draped around it, and the udder had not four handles but sixteen. As far as that 5 year old was concerned that was a cow.

Then when the parents come to school and see this art exhibit they look at the picture and say: "My goodness sakes alive, that doesn't look like a cow."

This is our problem right now with the public. The public expects at any age the child to be able to do the thing like the public thinks it ought to be done. Whether it is drawing a cow at the primary level or teaching social problems in the high school, the creative approach to learning is not that the teacher gives the pattern and the child merely learns it and then gives it back, and the more nearly he gives it back like the teacher had it the better grade he gets. Of course, we still do that quite often at the college level and some of these professors are our severest critics.

In the public schools we believe it is the duty of the teacher to help the child to draw his own cow; to help the child with the best information available develop his own answer. This is creative learning. But the public doesn't understand this. *The people don't understand that how one learns is just as important as what one learns.*

School subjects are not ends in themselves, but rather means to the end of producing enlightened and competent citizens.

The school attempts to help children learn, but the selection of what the pupil is to learn is the real issue. The school attempts to help young people learn to *be* or *do* something, not just to learn something. The pupil doesn't study subject matter just to learn subject matter. One teaches subject matter because subject matter does something to the child.

(Continued on Page 46)

Summer in Sugartown



CHALK DUST

Tred

FREDERICK J. MOFFITT

WILD asters and gillyflowers are drooping in the hot sun while skunks and woodchucks take extended siestas without thought for next year's curriculum. Grass and leaves have lost their freshness and the hum of bugs and bees, who have few responsibilities for purchasing supplies, is muted to a lazy symphony. It is summer in Sugartown, and nobody is working very hard—except the superintendent of schools.

There is an ancient and battered fallacy throughout the land that a school administrator works 10 months of the year in order to rest merrily during the summer season. Some folk still believe the lazy lout, following the soul searing battles of Commencement, hies himself to mountain or seashore, there to participate in skiing tournaments or to judge local beauty contests.

NASTY FALSEHOOD TOLD

This wicked falsehood originated in the old days when education was a more leisurely process, when community involvement meant no more than a gentlemanly argument with the local pastor, or when the study of science was carried on by observing the play activities of birds and bees.

In those carefree times, the master could lock the schoolhouse door, borrow a team and surrey, and journey to a neighboring hillside to starve in dignity and scholarly loneliness. Today, although he may be permitted to starve, his other activities are circumscribed by jangling telephones, citizens committees, annual reports, falling buildings, increased services of supply, and general community jitters. The starving process may be prolonged, but never lonely.

Because of the current economic repression, several members of the Sugartown Board of Education will extend their summer vacations until business starts to boom in the fall. However, repressions, depressions and impressions (social, political and otherwise) go forward with an increased rhythm in the schools. Parents generously continue to provide the basic materials to be educated, even though

sometimes a little careless about the wherewithal. For the school administrator summertime means increased work. In larger hamlets, I suspect this is even more true than in Sugartown, for we renew textbooks and tissues only every 20 years or so.

WIFE SAYS SO

"This year," says the Little Woman, "we are going to take that promised vacation we have never had. In spite of your plans for curriculum revision, the preschool roundup, the summer workshops, the demands of the auditing committee, the building blueprints, the textbook adoptions, the annual report, the parent conferences, and the leak in the roof at Hungry Hollow School, we are going to trip. Yes, honey, in spite of the Fourth of July parade, which must always be led by the superintendent of schools, and in spite of Mrs. Busty, we gotta go."

I recognize a family rebellion in the making. "Great Julius Caesar, who originally thought up this month!" I shout, inasmuch as that is as near profanity as a Sugartown school administrator dare go. "Don't you realize, my sweet, that this is July? Don't you know that for school administrators July has 31 working days, hot days, dog days, day nurseries, mean solar days, lunar days, and no days of grace?"

NO TIME OFF EARLIER

"That may be true," says the Wife, "but last year you promised we would go by-by in August. What happened? You went by-by all right—you went buy-buy on the 'M and O' for school supplies, replacements and repairs, but the children and I stayed home."

Thus the matter is settled. Without further argument, I write for credit cards and arrange an interview with the local bank president regarding the extension of a note.

"Sugartown Superintendent Leaves for Vacation," blares the headline in the weekly paper. "Juvenile Delinquency Increases Rapidly," "Summer School Plans Abandoned," "Tax Rates Soar," "Mrs. Busty Arranges Protest Meeting."

In preparation for the trip, I notify the telephone company to remove the phone, which the board of education had thoughtfully installed in my Volkswagen in an attempt to improve my public relations program and similar four-alarm fires. I knew that, in case of emergency, Mrs. Busty can always keep me informed by pigeon, as she is president and board of directors of the Sugartown Pigeon Carriers Association. I planned to leave word that if any teacher candidate shows up, to hold him on suspicion until I fly back. I arrange for a time payment on a one-way ticket to Alaska in case I reach the point of no return, and otherwise put my affairs in order as behoves any school administrator who indulges in reckless adventure or absenteeism.

A summer vacation for a superintendent of schools! O, futile hope and dream!

DREAMS LONG AGO

Before I became a school superintendent, I dreamed of a long vacation when I could hunt, fish, read, rest and ponder. True, there are opportunities to go fishing, but on such occasions I usually get dunked in community puddles not of my own choosing. My hunting is confined to teacher placement offices where teachers are wary and the ammunition furnished me by the Sugartown board is not very powerful. My favorite relaxation is swimming, and sometime I hope to use the school swimming pool. At the moment, however, I must confine myself to imaginary dips, for there will be no pool in Sugartown unless this summer I draw plans, argue bond issues, and enlist the cleaner elements of the community.

Indeed, I once hoped to use the vacation period for intellectual refreshment. A board of education ruling forcibly suggests that all teachers enter the box top contests for advanced degrees. I approached various educational institutions to get a few trading stamps. With some dismay I discovered that before reaching the summit I would be 75 years old—and retirement at Sugartown is 65. My in-

tellect, perforce, must be strengthened at workshops—ordinarily held at Christmastime or in Atlantic City.

Indeed, summer vacation from the Sugartown schools (and at Murder Hill, too, so my colleagues tell me) is almost impossible. Many curious customs and traditions make it inexpedient.

SUMMER CENSUS TAKEN

For example, the education law provides that Sugartown shall execute a summer census to anticipate the September overflow. Why is this done during the summertime when so many of my constituents have left for cooler climes and most of the little kiddies are parked in summer camps where they will learn uncouth vocabularies for which the school will be blamed later? It may be an effort to ignore the Malthusian law. In like fashion, the annual public meeting to explain away increases in the budget is held in July, when attendance is limited to a few remaining militant members of the Home Guard.

At Sugartown during vacation we have a summer roundup, a preschool rundown, multitudinous health clinics, and planning sessions for those faculty members who have not been lured into contract jumping by neighboring districts. The summer months are a time for improvement, for desk sanding, floor scrubbing and replacement, for budgets, buildings, barter and bus buying. My colleague in Hem-coop, lucky fellow, tells me that he uses the summer to tuckpoint. The process is new to me, but undoubtedly

has something to do with his curriculum.

Some of these responsibilities may be delegated by an astute administrator who hopes to find time for a few improvements in his own local system, e.g. fallen arches, tired blood, and general anemia, but, as a rule, these lesser occupational hazards must be delayed until the school is "covered" by both roof and homeroom teachers. At stated intervals, the wise superintendent will summon his board of education but, there being no quorum during the summer months, he will joyously accept responsibility. He can rest assured that his activities will be heatedly reviewed when the board returns in the fall.

COULD BE WORSE

This recital of the summertime activities is not meant to register irritation or discontent with the job of school administration. As much as any dedicated servant, the superintendent enjoys the hustle and bustle of his work, the sense of refurbishment it gives him, the satisfaction of getting things done, the knowledge that he is helping the community, and the feeling of well-being that comes with sweat and toil and improvement. In many ways, the long summer days when the kids are on the playground, the teachers are at summer school, and the school board is in Banff are the most satisfying of the school year. There is opportunity for retrospection and introspection of the educational processes as well as for inspection of the ancient buildings. #

he might, nor does he ever achieve the limit in quantitative understanding and skill. Failure to grasp this conception of education and of educational goals can only lead to a misconception of the program of the modern school."*

Subjection to reasonable authority is a necessary basis for individual freedom.

This final principle was not included in the published statement, which has been freely quoted in this presentation. I am including it because I am firmly convinced it represents the considered opinion of the vast majority of practicing educators in America.

Freedom without authority usually develops into license. Much of the juvenile delinquency that is now so widely publicized is a natural and inevitable result of a decline in the respect and acceptance of constituted authority in American schools and American homes. The average teacher is helpless in the case of the incorrigible child who knows no authority but force when in many of our school systems teachers are prohibited from touching a child as a disciplinary measure. To permit a child to defy the teacher and get away with it is the beginning not only of crime but anarchy.

In too many classrooms the educational advantages of the great majority are being jeopardized because the teacher is required to use too much time in begging and cajoling some one child who does not respond to the influence of moral integrity, or who finds it impossible to respond to the more desirable and positive disciplinary techniques that are effective with the vast majority of pupils.

A necessary aspect of education is learning to relate oneself to reasonable constituted authority. At work, on the highway, or at play, some authority is necessary. Authority without power is a sham. There is no substitute for force with the individual who has been conditioned to respect no other influence. There is nothing here inconsistent with the principles already enunciated.

These principles may not be complete, nor is there any certainty that for any given school system they are accurate, but my thesis is still defensible. We should now determine in any school situation what our basic principles are, then set about systematically to interpret our basic philosophy to the public. If this approach is taken, the details will take care of themselves. #

The Real Attack Is on Education for All

(Continued From Page 44)

The traditional parental question to the teacher was: "How is Henry doing in algebra?" The proper question to ask is: "How is algebra doing in Henry?" This attitude changes the whole emphasis. The important consideration is what is going on within the child, that is, what has happened to him that makes him better able to make wise decisions as an enlightened citizen. This is the all-inclusive purpose of education.

Education is a process and not a condition.

The goals of the school represent directions for personal development that are continuous throughout life. One can't give a child a test at the end of the 12th grade and find out whether he is educated. I quote again from the policy statement:

"Education is a process, not a state or condition. Learning never stops;

it is continuous throughout life. The adult aged 30 has quite a different conception of democracy than he had when he was 15 or will have when he is 50. Meanings should steadily become fuller and richer with the years. Interests should broaden and deepen. Values are subject to change with experience. The school is always seeking to encourage this kind of continuing development.

"For this specific purpose the school establishes goals at the farthest edge of the grasp and does so with deliberate intent. It then provides learners with opportunities for personal growth toward these goals which, when extended into adult life, will produce the 'enlightened' citizen. In an extreme sense these general goals of education are unattainable, for no one can hope to realize them to the full. No child or adult ever learns to read perfectly or even as well as

*The School and Its Program, Commission on Educational Policy, California Teachers Association, San Francisco, 1958.

Propose Solutions to Problems of School Finance

CHICAGO.—From here on in, the field of school finance will be an increasingly rugged one. With enrollments up everywhere and state tax collections down in some areas, more and more school districts are facing financial plights. While pressures may not be felt fully until the next legislative year, there is critical need today for a nationwide study of possible solutions.

This is the thesis that prompted the national conference on school finance problems, held here May 22 and 23 under the sponsorship of the committee on tax education and school finance of the National Education Association. More than a hundred specialists on fiscal problems—representatives of 45 state education associations and state education departments, and consultants—participated.

The conference's main purpose was announced early by Chairman Arvid J. Burke: to find ways to provide the additional revenues needed to assure more equalized educational opportunities for all boys and girls and a high quality of education everywhere in the country. Dr. Burke is director of studies, New York State Teachers Association, and chairman of the sponsoring N.E.A. committee.

For two days the specialists "picked their brains" in an effort to identify the major problems and to outline some of the things that should be done. Also, they took a good look at each other's area programs in the hope that through the sharing of experiences and technics a contribution would be made to the solution of their common problems.

Inequitable assessments. A wide array of school revenue producing programs was paraded before the conference. Across each fell the shadow of the one cross-country issue: inadequate and inequitable assessment on real property. The practice of states to assess at less than true value has resulted in a higher *rate* of taxation. Yet the proceeds are no more than the amount of revenue collectible from a lower rate on property assessed as it should be.

Tax limitations. Closely allied are constitutional and statutory provisions of many states which restrict the amount of revenue collectible from taxes by limiting the maximum millage that can be levied legally for school purposes.

Too many collectors. A third preoccupation of some state representatives had to do with the existence of

too many taxing units. This situation creates a tendency to pyramid taxes and the resulting burden that real estate may be bearing in the tax structure of the state.

Before answers can be found to the multiheaded question of school finance, it was agreed, the educational sights of citizens must be raised. Civic leaders must be made to understand the urgency of developing a revenue plan for meeting the changing needs of society, and their wholehearted participation and cooperation must be obtained. There still is much that many communities can do to raise themselves by their own bootstraps.

SPECIALISTS' SPECIALISTS

Guiding the discussions of each of the 10 work groups were the following consultants: Paul R. Mort, Teachers College, Columbia University; R. L. Johns, University of Florida; Edgar L. Morphet, University of California; William P. McLure, University of Illinois; Clayton D. Hutchins, U.S. Office of Education, and A. Clair Moser, Pennsylvania Education Association.

Speakers were Paul L. Strayer, professor of economics, Princeton University, and Erick L. Lindman, professor of school administration, George Peabody College for Teachers, Nashville, Tenn.

Members of the tax education and school finance committee, and liaison persons from the N.E.A. research division and information services took part in the meetings.

At the closing session, summarizing reports were made by representatives of each discussion group. Highlights of the talks are reported here:

Well balanced state tax system. The tax program of the state should be continuous, not hit-and-run. Today's state aid plans increasingly are reflecting local needs, rather than an occasional bailing-out of local communities in financial difficulties. Schools are only part of the unitary problem of state and local governments, and the school solution lies in working out together a well balanced community plan.

Even when full limits are levied under their constitution or statutes, school revenues in many instances are inadequate. A state agency is needed to do a conscientious and continuing job of making a fair and equitable appraisal of property with authority to tax on that basis. Perhaps the employment of professional assessors

(Continued on Page 58)

THE only way the (school finance) crisis can be solved is by an equitable sharing of the costs of education among the federal, state and local governments. . . . The difficulties confronting a state like California or a town like Levittown are not definable in terms of present or potential wealth; rather, they are related to the capacity of the state or local government to pay for the sudden large capital outlay required to meet the needs of the children of school age. . . . The costs of education are going to double over the next 10 years. . . . State and local governments have not been able to put their own house in order. Failure to reappportion the delegates to their governing bodies, too many elected officials, inadequate leadership, infrequent legislative meetings, a low-grade civil service often affected by patronage, and too low salaries have led to a decline in the quality of many of our state and local governments. . . . There is no evidence that a state with a progressive tax system has suffered in its competition for industry, but legislators can be persuaded that this would be the case by the use of fear psychology. . . . Unless help is forthcoming from the federal government, the states will find that the deterioration of the quality of education will lead most persons to request direct federal intervention. . . . All states should be required to make a realistic effort in relation to their income. Only after this has been done should they be eligible to receive equalization or flat grants. . . . Not only can the federal government raise money more efficiently and administer taxes more equitably, but also it has the capacity to distribute the costs of education more fairly among all the people who will benefit from improvements in the quality of our workers and leaders. . . . We must face the fact that old relationships among the federal, state and local governments have changed. When the federal government demanded little, the state and local governments were in a favorable position (to finance schools). Today, they are second and third claimants upon the taxpayer's dollar (because of the cost of the defense program and the retirement of debts of past wars) and they are finding it increasingly difficult to pay their bills.

—Excerpts from address at National Conference on School Finance Problems.
By PAUL J. STRAYER, professor of economics, Princeton University.

SCHOOLHOUSE PLANNING

Teaching in Trisectioned Areas

CHARLES D. GIBSON

OUT of crisis comes progress. Had there not been a housing crisis in Gladstone School District, Covina, Calif., no one might have found time to review the school situation thoroughly enough to arrive at the Valleydale plan.

As initiated at the Valleydale Elementary and Intermediate School, the plan expresses an exploratory educational program in a unique arrangement of building space: the trisectioned, multi-use teaching station. The program is housed in the three seventh and eighth grade wings of the K-8 school.

Each of the upperclass wings is divided into two rectangular learning areas, fitted end to end, but separated by a partition. Each area in turn can be divided into three 28 by 30 foot rooms by means of folding doors. When the doors are closed, there is a homeroom at either end of the rectangle. Between them is a multi-use room which is accessible to either class, or both. When the folding doors are open, as they are much of the time, the continuous, unpartitioned area of some 2520 square feet can be utilized in a variety of ways, as illustrated by the pictures. Or the rooms can be used in combinations.

The central multi-use area occupies space ordinarily used for separate homemaking, art and industrial arts laboratories and shops. For reasons to be explained, the Valleydale program for Grades 7 and 8 is exploratory, rather than detailed. Accordingly, the multi-use space has token, rather than specialized, equipment. The latter is placed along the periphery of the room, leaving most of the floor space clear for other

phases of the educational program. In each multi-use room can be found a single sink, 18 by 30 inches; a double sink, 21 by 32 inches; an electric range; two tables; two workbenches, and both wood and metal topped work space along the walls.

Each homeroom has a teacher's closet, students' wardrobe, chalkboard, corkboard and a water heater, in addition to the desks and seats.

The folding doors are 16 feet high. Floors are asphalt tile; the base is rubber tile. Walls are exposed brick and exposed concrete, plywood and acoustical tile on stripping. The latter material also forms the ceilings.

On the average, a homeroom has 33 children. Thus there are some 66 pupils in each trisectioned unit, and 132 in each wing. The 396 children who use the 18 rooms in the three upperclass wings represent about half of the Valleydale School population. Seventh and eighth graders are entirely apart from the K-6 section of the school and have their own playgrounds. They use the school's food service, assembly and indoor play facilities along with children of the lower grades.

INVENTORY BENEFITS

After one and a half years' experience with the three-part, multi-use teaching area unit, Supt. Milton J. Brownsberger and the supervisors and teachers working in Valleydale School have evaluated what has happened. They report four advantages:

1. The Valleydale plan provides an environment that encourages the individual pupil, with his many interests, to increase his scope of learning under the direction of one teacher,

who knows thoroughly the pupil's strengths and weaknesses.

2. It permits and encourages integration of the total school program.

3. It allows greater flexibility of scheduling.

4. It provides the kind of space and equipment that leads to less specialized and more general study.

Among the uses made of multi-use rooms, to supplement the activities of the "regular classroom," the following are reported by the teachers:

Science instruction and experimentation; art instruction and project development; craft activities in ceramics, copper and leather; woodworking for both boys and girls, including the construction of stage scenery, and athletic equipment; homemaking activities for both boys and girls; physical education, including rhythms and folk dancing; music activities, including listening to recordings and making tape recordings; small group projects in all subject matter fields.

Other uses made of the area include cooperative group activities with other upper grades; cooperative sharing of experiences with lower grade classes; social dancing and recreational games; demonstration assemblies for students of both grades; display of rocks, stamps and other items brought in by the students; housing of materials in many subjects, and library service.

HOW PLAN EVOLVED

Behind the physical design of Valleydale School's seventh and eighth grade wings is the educational philosophy of the superintendent and the history of Gladstone district.

From his considerable experience as a wood shop teacher and administrator, Mr. Brownsberger has arrived at some rather definite conclusions about a departmentalized program for 13 and 14 year old boys and girls. He states:

"In a departmentalized program for students of this age, the child (and that is what he still is) doesn't have anyone to 'tie to.' Teachers need more contact with a child than is possible in a one-hour class period with from 30 to 40 students if they are to gain understanding a student needs.

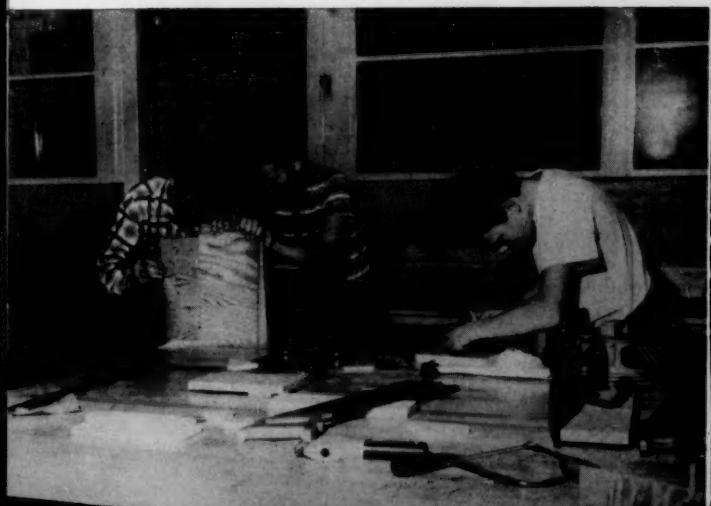
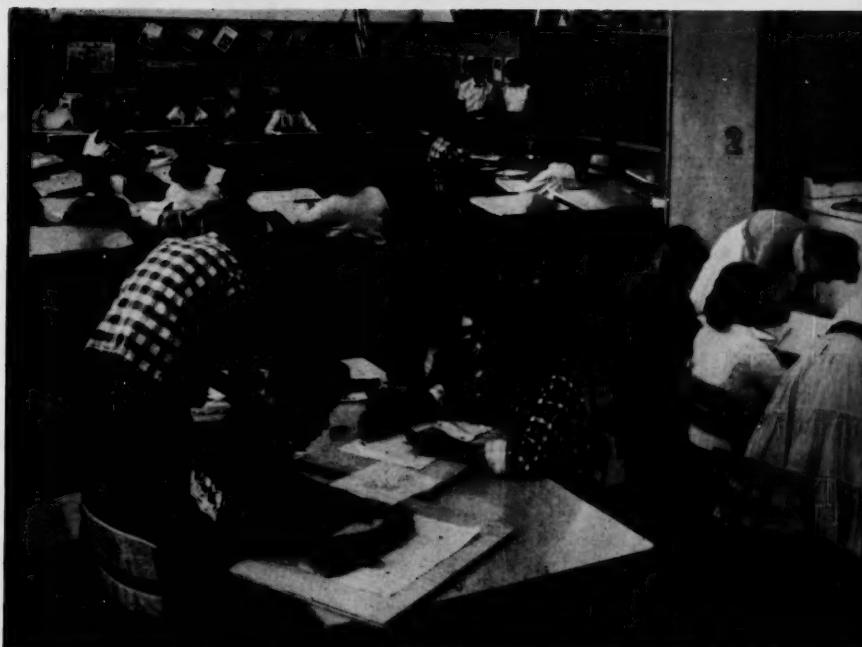
(Text Continued on Page 46)



Charles D. Gibson served California schools from 1927 to 1943 as teacher, principal and district superintendent. Thereafter he became identified with the school planning bureau of the California State Department of Education at Los Angeles. On March 1 he was appointed chief of the bureau. Former president of the National Council on Schoolhouse Construction (1953-54), Mr. Gibson since has spearheaded their efforts to revise school lighting standards. For this work he was elected a Fellow of the Illuminating Engineering Society.



Above: A one-in-three and a three-in-one area. The open folding doors mark the division between the two homerooms and the multi-use area. The doors are open more than they are closed, providing more than 2500 square feet of floor area for the two teaching stations for all educational activities. The teachers state they have no more problem with student distraction with the doors open than when the doors are closed. Classes are mixed for some activities and, at times, teachers work with students from both classes. Right: The multi-use area between the homerooms has been commandeered for an art project while the rest of the class continues their studies in the homeroom. Below, left: Tools and different types of work surfaces are available for many kinds of exploratory activities. Below, right: This view of the trisectioned teaching station shows how the multi-use area can be used for homemaking training.



Right: The site plan of the Valleydale School shows four types of facilities in six buildings: (1) three wings for Grades 1 through 6; (2) kindergarten; (3) administration building; (4) multi-purpose building that provides food service, assembly and indoor play facilities for pupils of all grades, and (5) three wings for Grades 7 and 8. Balch, Bryan, Perkins and Hutchason of Los Angeles were the architects.

"The specialist teacher sees the child in only one activity, in which he may or may not have interest or competence. If the student does not cause too much trouble, a teacher will 'put up' with him for one hour a day. If he is seriously maladjusted, there generally is no follow-through on his case until he gets into real trouble.

"In a homeroom program, the teacher has the student all day. He observes the child in all kinds of activities and helps to develop his big interests and his aptitudes in a variety of work areas. With Mom and Dad out making a living, this teacher also has a good chance to give the student more stability by representing, to a degree, the security a child must have."

The former shop teacher comments on specialization:

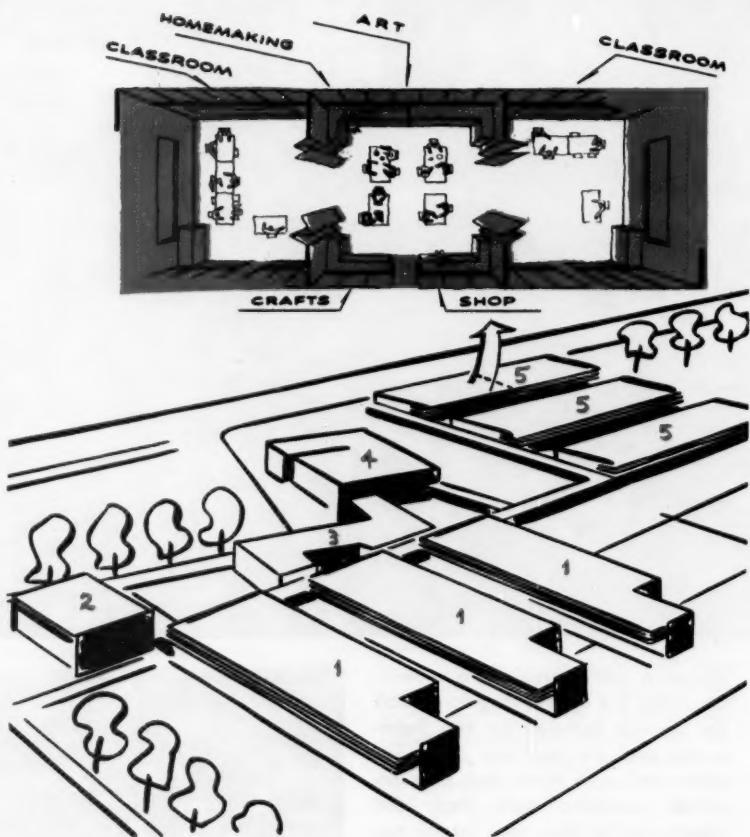
"There is a tendency for teachers who are specialists in one field to expect *all* students to achieve a high level of competence in that field. They do not appear to recognize individual differences in students to the degree the homeroom teacher does.

"Thirteen and 14 year old students are not ready to be specialists. Even if they were ready, the large majority of them do not have the motor coordination necessary to achieve high standards of workmanship with hand tools. Some of the smartest kids I knew as a teacher just could not 'square' a board; besides, hand tool competence is not necessary for machine tool competence."

Explaining how the foregoing theories were applied to the local situation, Mr. Brownsberger said:

"As our staff studied the problem of how best to set up and house a program for seventh and eighth graders, we agreed to limit such special fields as industrial arts, homemaking and science to an exploratory program. We wanted our students to be aware of the many interesting study areas available to those interested and capable, and to help them create a readiness for such areas as they are offered at the high school level.

"We also concluded that we would organize our upper grade program so that boys and girls could work to-



gether as much as possible. This would give each student a double chance to discover another student with similar interests. Coeducational activities, too, would give both boys and girls a better opportunity to learn to get along well together."

Also contributing to the evolution of the trisectioned teaching unit was the history of the area.

Gladstone School District had been in existence for some 78 years as a strictly agricultural community when, in 1946, residential subdivision began. During the following seven years school enrollment rose from 40 pupils, with two teachers, to 250. Then between 1953 and 1957 the school population shot up to 3800. And still they came.

To evaluate the situation, a working team was formed, consisting of members of the staff, the Los Angeles architectural firm of Balch, Bryan, Perkins and Hutchason, and the bureau of school planning of the California State Department of Education.

A saturation enrollment study (subsequently verified) showed that at least six large schools would be needed to accommodate the pupils from kindergarten through eighth grade.

Exploration as to the desired kind of grouping led to the conclusion that for the first six grades the regular one-room, one-teacher grade organization seemed adequate, especially if careful screening and grouping procedures were utilized. But what about the seventh and eighth grade program and housing? The answer was reached after considering the area situation.

TO AVOID DUPLICATION

Azusa High School, which serves Gladstone district, offers students from Grades 9 through 12, in addition to an academic program, complete beginning courses in industrial arts, homemaking, the sciences, arts and crafts, and music, as well as in other specialized subjects. Citrus Junior College (of which district Gladstone district is a part) and Mount San Antonio Junior College (in a neighboring district) have a wide variety of offerings, including vocational and preprofessional courses.

Thus the graduates of Valleydale School have a fine opportunity to specialize in virtually any subject of their choosing in Grades 9 through 14.

It was found, too, that while local industry likes to employ persons with

some basic skills, good adjustment and a good general background are emphasized; companies prefer to teach the highly skilled aspects of a job on the job.

In view of these findings, it was concluded that in Valleydale's Grades 7 and 8 less emphasis could be placed on specialized subjects.

PREPARE MASTER PLAN

When the specific problems of the area had been identified and evaluated, it remained for the administration, the working team, and the staff to crystallize the conclusions into an educational program and into school facilities to expedite that program. Toward that end the following educational specifications were prepared by district personnel and state advisers and presented to the architects.

1. Gladstone School District should be master-planned for six schools, each, at saturation enrollment, to serve kindergarten through eighth grade. The immediate program would require two K-8 and four K-6 schools.

2. All buildings must be designed to lend themselves simply and economically to reassignment of space use. No structural partitions were to be employed.

3. The district would need to apply for a state building loan to finance the needed school sites and buildings; therefore, all building area limitations and the cost limitations of the state-aid program must be met.

4. In the seventh and eighth grades, there would be an accent on a general *exploratory approach* to the specialized subject fields. Space and equipment would be provided in such way that every subject taught could share its use. No separate shop or laboratory facilities, such as industrial arts or homemaking, would be provided. Instead, a "materials center" would be established from which students and teachers could obtain specialized equipment and teaching-learning aids they could use in regular classes and/or multi-use classroom activities.

5. The one class, one teacher system, used in kindergarten through sixth grade, would be used also in the seventh and eighth grades. This basic classroom system of instruction would be supplemented by assistance to the classroom teacher by subject matter specialists when such help was desirable.

At Valleydale School the multiple-use classroom is making possible the program planned. The much feared teacher adaptation problem did not develop. Both young and old teachers accepted the scheme and philosophy under the guidance of district administrators and supervisors.

On the basis of his experience, Mr. Brownsberger believes the Valleydale plan has considerable promise for the many school facilities being constructed these days.

"Would you repeat this program concept if you were building another school?" he was asked.

"We would, and we are," he replied. "Our new K-8 school follows the same ideas, for the plan has received the active support of both staff and community."

TIME-TESTED SOLUTION

This does not mean that after a year and a half of use no flaws have been found in the Valleydale facilities. All spaces there could be larger, users agree, and there could be more cabinets and different kinds of cabinets and larger work surfaces. The present desks, teachers believe, take up too much floor space for the amount of work surface they provide; they will be replaced by individual tables and chairs with storage space. But these are improvements that can be incorporated easily in future schools of the district.

Construction cost of the three upperclass wings at Valleydale has not been separately calculated. Some idea of the outlay may be gained, however, from the fact that the overall cost of the school's 44,333 square feet was \$611,200, including \$67,500 for site development and utility in-

stallation. This figure, which covers also the food service, assembly and indoor play areas which are shared with the K-6 section, and the three wings occupied by the lower grades, represents an investment of \$13.78 a square foot.

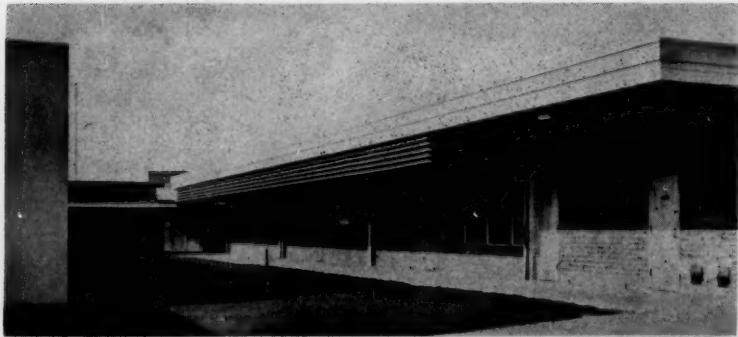
While the trisectioned classroom evolved out of a critical housing shortage, the construction plan was not a financial emergency measure. The school was built for 7 per cent less than cost allowances made for school construction in the state. Rather, the plan represents the application of the problem solving approach to good educational planning, Superintendent Brownsberger says.

SEES TRANSFER VALUE

In his judgment the three-part, multi-use instruction area is equally suitable in the junior high school type of organization, or, for that matter, in a K-6 or any other kind or size of school in which the administration wishes to make available the right kind of space for an exploratory type of educational program. Employment of the multiple-use arrangement is recommended by him even in areas in which population growth and the housing shortage are less critical than they are in Gladstone School District. #



Above: These individual plastic containers are used to store all types of materials. When not in use, they can be stored in a closed cabinet. Left: The exterior of one of the three wings, each of which houses a pair of tri-sected teaching units (four homerooms and two multi-use rooms). Many activities can be carried on out of doors in the "court" area between the wings. Corridor area can be used to supplement the indoor instructional space.



The junior high at Davenport, Iowa, is planned for no more than 750 students.



Profusion of Light Through Roof, Windows

BECAUSE it was believed that for effective learning its student population should not exceed 750, Northwest Junior High School, Davenport, Iowa, was laid out for this maximum. No classroom additions are contemplated in the master plan, although provisions are made for an auditorium and a swimming pool.

Among the features of the school is an illumination system that effectively combines the efficient use of daylighting with artificial lighting. Suspended fluorescent troffers are used in combination with clear and glass block window walls and glass block skylights.

Louis C. Kingscott & Associates of Des Moines, Iowa, and Kalamazoo,

Mich., designed both the building and the lighting system at Northwest Junior High. Stressing the importance of proper installation of the skylights, particularly in flashing the units, a member of the architectural firm stated:

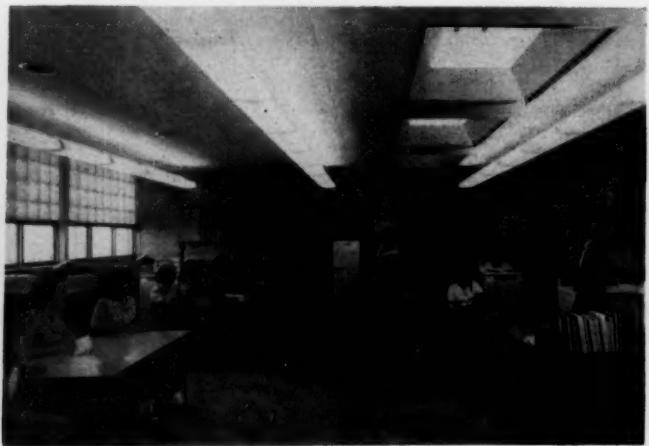
"In our considerable experience with glass block skylights, we have found that this design is such that light, particularly on a bright day, is diffused evenly over the room to the point that the children scarcely are aware of the overhead sources. Even on dull days these skylights admit enough light so that artificial illumination seldom is necessary. Rainfall keeps the surfaces washed, and units need cleaning only infrequently. Since

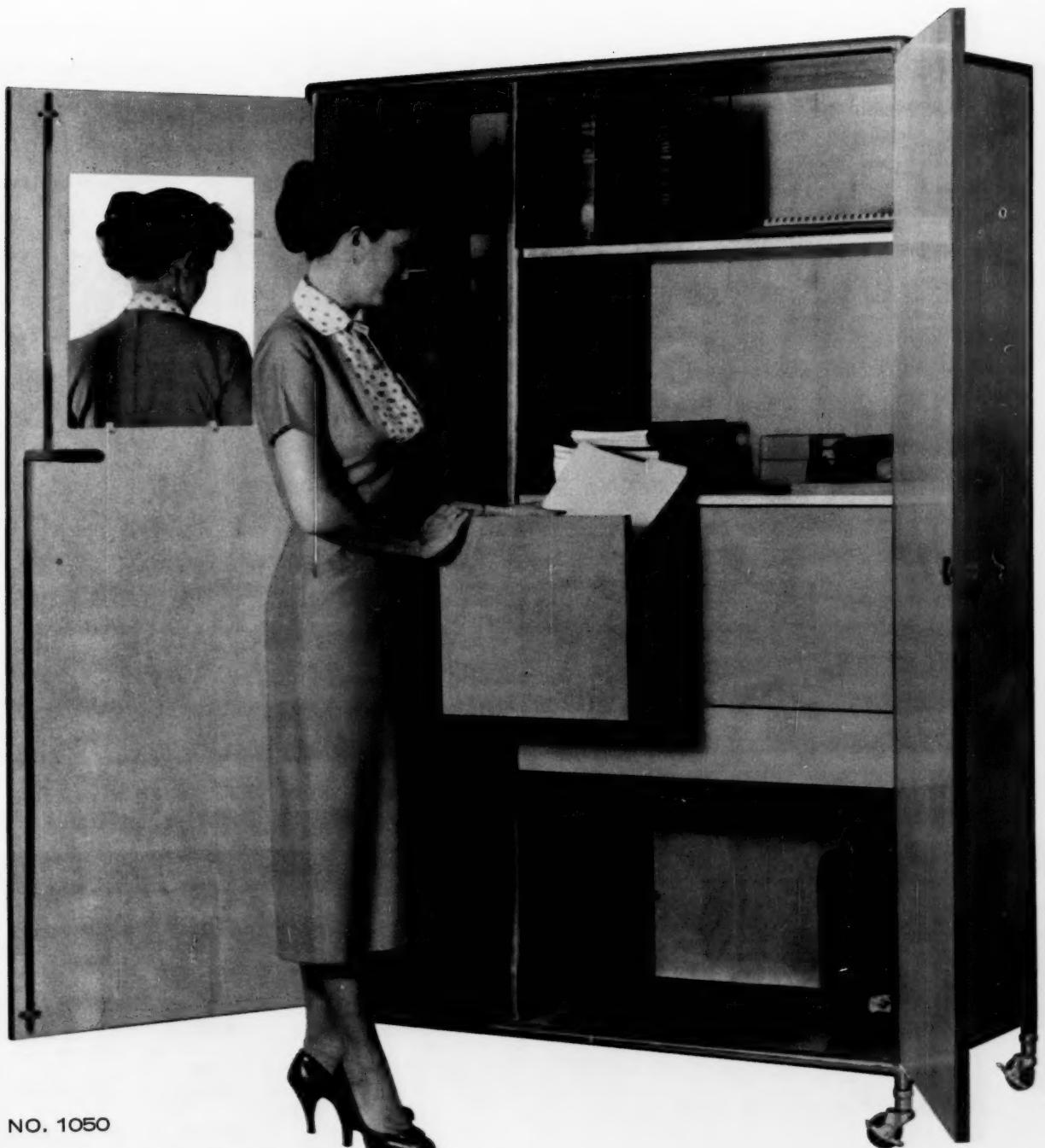
a certain amount of heat goes through the skylights, snow usually is melted as it falls on them."

Locating Northwest Junior High School on a picturesque 30 acre tract permitted a degree of open planning. The student commons, library and offices are grouped around a small court. This arrangement achieves a campus effect, while control is retained under one roof.

The school comprises 86,500 square feet, and cost \$1,174,000, or \$13.55 a square foot. This figure includes considerable fixed equipment, but excludes fees, site cost, landscaping and movable equipment. Harold J. Williams is the superintendent of the Davenport schools. #

Below, left: Good seeing conditions at all work areas in this shop are the result of planned distribution and diffusion of light, even in the areas that are farthest from the windows. The use of glass block in the upper portion of the window wall keeps out the unwanted sun rays, yet allows the light to filter in, says the architect. Below, right: Natural lighting from roof and windows and artificial lighting from the fluorescent troffers assure evenly distributed illumination in this homemaking room, the planners report.





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Associate Chief, Educational Records and Reports
U.S. Office of Education

WHAT does it cost to educate a child in our schools? Perhaps not as much as you think.

Duplications resulting from the accounting treatment given certain transactions can produce exaggerated school receipt and expenditure figures that in turn lead to inflated and unrealistic pupil cost statistics. This is true because in certain transactions the money goes "round and round," and without proper handling the same money, or portions of it, may end up being recorded two or three times. The resulting distorted picture of the amount of money a school district has received and spent during the year may create any number of problems, from invalid comparisons to gripes because the schools have been spending too much money.

AVOID BALLOONING

To show how such artificial ballooning of receipts and expenditures can happen, and how it can be avoided through the use of clearing accounts, is the purpose of this article.

In most instances, the chief cause of headaches from account duplication, at least from the standpoint of volume, is to be found in those school activities that are financed wholly or in part by the revenue produced by the activity. Examples of these activities are: food services (children pay for their meals and this money is used to buy more food, to keep the operation going); student-body activities (students pay fees or dues that are used to finance clubs and similar activities), and instructional materials, such

as textbooks or workbooks (the school buys the material and then resells it to students).

Other potential trouble spots contributing to account duplication include: current loans (money is borrowed in anticipation of taxes and paid back within the same fiscal year); exchange of one asset or liability for another asset or liability (the school district purchases government securities or refunds a bond issue); abatements of revenue (a part or whole of a previously recorded receipt item is returned to its source, for example, an overpayment of aid to the school district); abatements of expenditure (a part or whole of a previously recorded expenditure item is received back from the payee, such as an adjustment in a bill after it has been paid), and interfund transfers (money is simply transferred from one fund to another fund, all within the same school district).

LOOK AT EXAMPLES

How important the problem of eliminating duplication in the accounts is to your district depends upon how accurate and reliable you think school financial figures should be. To illustrate, let us look at financial statements of two large school districts. The figures are actual, only rounded out for simplicity's sake.

School District "A" operates its food service program through the general fund *without* the use of clearing accounts. Total expenditures of the general fund approximate \$25.6 million, exclusive of capital outlay and the

debt service. This total does include all food service expenditures of approximately \$1.5 million, or close to 6 per cent of the total expenditures. The \$1.5 million outgo, however, is offset almost entirely by receipts from the sale of lunches.

From this, it can be seen that there is considerable difference between the actual total expenditure figure obtained from the regular accounts and an expenditure figure that does not include gross food services expenditures. In fact, in this case there is a difference of approximately \$18 per pupil.

NO DUPLICATION

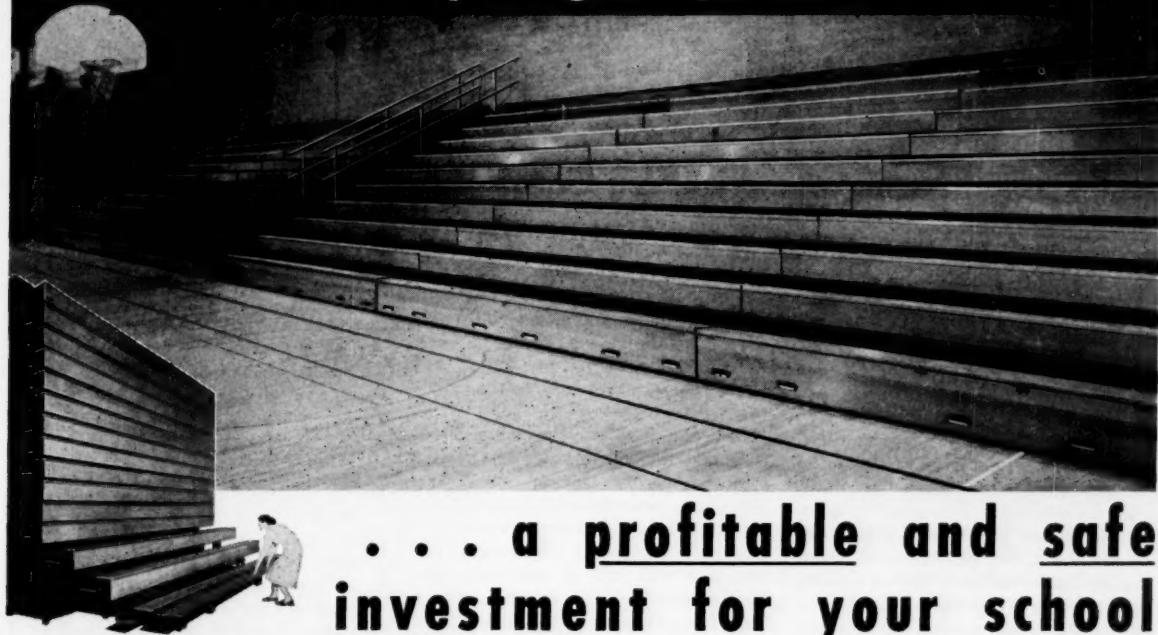
In School District "B," the financial transactions for food service are handled through a separate cafeteria fund. This means that the gross expenditures of the cafeteria fund, some \$9.3 million, are not reflected in the total of about \$152 million spent for the operation of the school program. Thus for School District "B," whether gross food services expenditures are included in the total expenditure figures or excluded makes a difference of approximately \$21 in the per pupil cost figure.

In both of these examples, there has been a complete and accurate accounting for the monies involved. Yet, there is one significant difference between the two.

In the first instance, the total expenditure figure, as published, includes the duplicating transactions inherent in a food service operation in which the students pay for their lunches. To eliminate this dupli-

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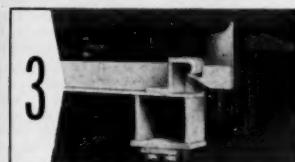
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tion from per pupil costs, it is necessary to go back into the accounts, find certain cost items, and then deduct these items from the total expenditure figure.

In the second instance, the total expenditure figure, as printed, does *not* include the duplicating transactions of the food service program. Thus, it is not necessary to tinker or make adjustments in the total expenditure figure in order to eliminate the false ballooning of costs by the food services program.

To many, "total expenditures" means just that, and a figure with that label is only too often accepted as such. The two examples show that the amount of money involved in duplicating transactions can be sizable and that the way in which they are handled has considerable bearing on the validity of school financial data and the ease with which valid data are obtainable.

DEFINITIONS OF ACCOUNTS

An answer to the problem of duplicating transactions is to be found in the expanded use of clearing accounts.

As defined in the Financial Accounting Handbook* published just last year by the U.S. Office of Education, clearing accounts are used to accumulate total receipts or expenditures, either for later distribution among the accounts to which such receipts and expenditures are properly allocable or for recording the net differences under the proper accounts.

Closely related to the concept of clearing accounts in terms of end result is that of *revolving funds*. As a matter of fact, for certain activities it could be simply a matter of choice whether to use clearing accounts or to establish a revolving fund.

A revolving fund, according to the handbook, is a sum of money or other resources set aside to carry out a cycle of operations. The amounts expended from the fund are restored from earnings from operations or by transfers from other funds so that it remains intact, either in the form of cash, receivables, inventory or other assets. Fund accounts constitute a complete entity and all financial transactions for the particular fund are recorded in them.

*Reason, Paul L., and White, Alpheus L.: Financial Accounting for Local and State School Systems, Standard Receipt and Expenditure Accounts. U.S. Government Printing Office, 1957. U.S. Department of Health, Education and Welfare, Office of Education, State Educational Records and Reports Series, Handbook II, Bulletin 1957, No. 4. Developed cooperatively with the American Association of School Administrators, the Association of School Business Officials of the United States and Canada, the Council of Chief State School Officers, the Department of Rural Education of the National Education Association, and the National School Boards Association.

From these definitions, it can be seen that *clearing accounts* are part of a fund, whereas the *revolving fund* is a separate fund in itself apart from any other fund. Clearing accounts can be used with any fund. Even within revolving funds, certain clearing accounts may be necessary to eliminate duplication within the fund. For example, within a food service or athletic revolving fund, there may be clearing accounts for abatements, insurance adjustments, interfund transfers, purchase and sale of securities, and others.

DEPENDENT ON MANY FACTORS

Whether general fund clearing accounts or separate revolving funds are used to account for the duplicating transactions depends on a combination of factors, such as governing laws and regulations and the size of the operation; however, the following statements apply to any fund, and equally to clearing accounts and revolving funds.

The use of clearing accounts is exemplified in the workings of the five typical clearing account operations previously mentioned, namely, accounting for: (1) current loans, (2) materials purchased for resale, (3) purchase and sale of securities, (4) abatements, and (5) interfund transfers. Let us now examine each in turn.

1. **Current Loans.** Suppose a school district, which does *not* use clearing accounts, borrows \$10,000 in anticipation of taxes, payable in the same fiscal year in which the loan is arranged. At the time the money is obtained, it would be recorded under the regular receipt accounts. The money is then used to purchase certain goods or services. When the bills are paid, the money is recorded under the regular expenditure accounts for the goods or services purchased.

At this point, the money has been once recorded under the receipts and once under the expenditure accounts. When money is received from tax sources to pay off the current loan, such money, too, is recorded under the regular receipt accounts as money from taxation or appropriations. When the loan is paid off, \$10,000, the amount of the loan, is recorded under the regular expenditure accounts.

FALSE APPEARANCES

Now let us analyze what has happened. The school district has purchased only \$10,000 worth of goods or services. However, total *expenditures* will show that \$20,000 has been expended—\$10,000 for the goods or services and \$10,000 in payment of the loan. Also, total *receipts* will show \$20,000 as having been received for

use by the school district—\$10,000 when the loan was obtained and \$10,000 when the tax money was received to pay off the loan. Expending \$20,000 for only \$10,000 worth of goods or services is not good business in any man's language. Of course, that is not what has really happened—but it might *look that way!*

Now let us follow the transaction when clearing accounts are utilized. We shall use the same amount as in the previous example. This time, when the \$10,000 is borrowed, it is recorded as money received under what in "Financial Accounting for Local and State School Systems" is designated as clearing account 1610, Current and Short-Term Loans. As the money is used to purchase goods or services, the payments are recorded under the regular expenditure accounts. When tax money is received to pay off the loan, it is recorded under the regular receipt accounts. Then, when the \$10,000 is paid back, it is recorded under clearing account 1610 as money paid out.

CLARIFYING THE TRANSACTION

At the close of the fiscal year, Clearing Account 1610 must be balanced in order to close out any ending balances to the regular receipt and expenditure accounts. Since the \$10,000 was received and paid back in the same fiscal year, there is a zero balance for this loan. The result is that none of the \$10,000 loan finds its way into the total receipts and expenditures for the school district and thus does not provide misleading figures. The regular receipt and expenditure accounts show \$10,000 received, and \$10,000 spent for \$10,000 worth of goods or services. Yet, there has been a complete and accurate record of the loan transaction.

Parenthetically, it should be pointed out that both current and short-term loans are handled through the same clearing account, 1610. The reason for this is that when a loan is obtained, it is not always known for certain whether the loan will be paid back within the same fiscal year or later. When balances in the clearing account to the regular receipt and expenditure accounts are closed out, the duplications inherent in the current loan transaction are eliminated, as we have seen. Any balances remaining are the short-term loans that are recorded in the regular receipt and expenditure accounts. #

(In next month's issue, Mr. Reason will describe in detail four additional clearing account operations: materials purchased for resale, purchase and sale of securities, abatements and interfund transfers.)

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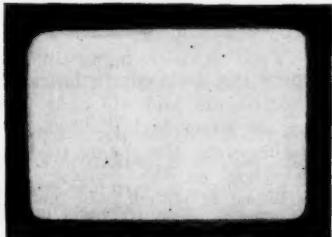
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Administrators Take Lead in Discussing Lunch Program

ALTON, ILL.—A good school lunch program is "pertinent to the well-being" of pupils, but as yet the public and even some schools have not accepted it as an integral part of education. To the public, the school lunch still is a convenience, tolerated only because Mother either did not care to prepare the lunch or the children were too far away to return home to eat.

This was the feeling expressed by some principals, superintendents and cafeteria supervisors at the April drive-in conference on "Educational Opportunities in School Lunch Programs" held at the Shurtleff campus here of Southern Illinois University.

The conference, attended by 75 school administrators and some cafeteria supervisors, was on a Saturday morning. Arranged by Eric R. Baber, director of the Alton residence center at Southern Illinois University, it permitted discussion of the school lunch program as related to the curriculum, facilities, public relations, operating policies and records, and personnel. With the exception of the panel on facilities, each panel chairman was an administrator.

PUBLIC RELATIONS CAMPAIGN

Wilbur Trimpe, panel chairman, and superintendent of Community Unit District No. 8, Bethalto, Ill., said that in order to establish a successful school lunch program the board of education and the administrator first must take the pulse of the community regarding the school's obligation to feed the school children; then work out a sound philosophy built around five points, and finally launch an enlightening public relations campaign.

Mr. Trimpe named six administrative phases of the school lunch program which, in his opinion, require close attention by the board of education and administrators. These are: providing the physical plant; financing the program; obtaining the cooperation of the instructional staff; setting up the program as an educational experience; selecting lunchroom per-

sonnel, and carrying on a public relations program. The panel discussion centered on these six problems.

Devoting a major portion of his talk on the first two phases of the administrative program, Mr. Trimpe said, on financing, that "the cafeteria cannot operate in the same manner as a commercial cafeteria downtown, and be self-supporting." But he believes that the serving of food, including its preparation, can and should be self-supporting. This can be done, he held, through careful planning by the supervisor and cafeteria personnel, wide and varied use of surplus commodities, average lunch provisions for midday nutritional needs, wholesale buying, and proper preparation of food that is enticing and palatable so that many children will patronize the lunchroom to get maximum benefits for minimum costs.

"If students are given a choice of foods, much food will be wasted and students who are not very well trained in nutrition will again be eating desserts and no vegetables," he declared. "But if a well balanced meal is put on a plate, the average child will eat it without too much comment, thereby ensuring right nutrition and broadening his desire for the types of food he should eat."

ACCEPTING NEW FOODS

Another panel member, Ruth Kitzmiller, school lunch supervisor at Roxana, Ill., and secretary, Illinois School Food Service Association, directed the group's attention to such questions as, "Can our lunch programs play a part in improving the nutritional status of our students?" and "To what degree is it desirable to teach children to accept new foods?"

She cited studies showing that many young men grow into adulthood with nutritional deficiencies acquired through poor eating habits developed during their formative years. She also said that teen-age girls and young women have poor eating habits which will affect them seriously during their child-bearing years.

Other panel members, Mae S. Webb of the state department of public instruction in Springfield and J. B. Johnson, agreed that teachers and other school personnel can use the lunch program to enhance an understanding of the cafeteria's rôle in the total educational program.

It is an important teaching aid and "if possible, school personnel should accept and eat the same lunch that has been prepared for the children," Dr. Johnson declared. "The child imitates those he likes and the teacher is his idol."

Members of a discussion group on operating policies, however, held a different opinion. They stated that, whenever possible or necessary, "teachers should be allowed to have a plate different from the child's." They felt that most children need to understand that the daily needs of adults may be different from theirs.

Following the general session, the assembly broke up into six discussion groups touching on: instructional possibilities; public relations; operating policies; finances and records; personnel considerations, and equipment and facilities.

Guest speaker at the luncheon program was Dr. Mary deGarmo Bryan of Chicago, former professor of institution management, Columbia University, and an editorial consultant of *The NATION'S SCHOOLS*.

NEED TRAINED PERSONNEL

Dr. Bryan stressed the need for trained people in the food service business. "We should encourage more internships, such as Oklahoma is starting this year," she suggested, and "we should be using our vocational schools for training employees for local lunchroom management."

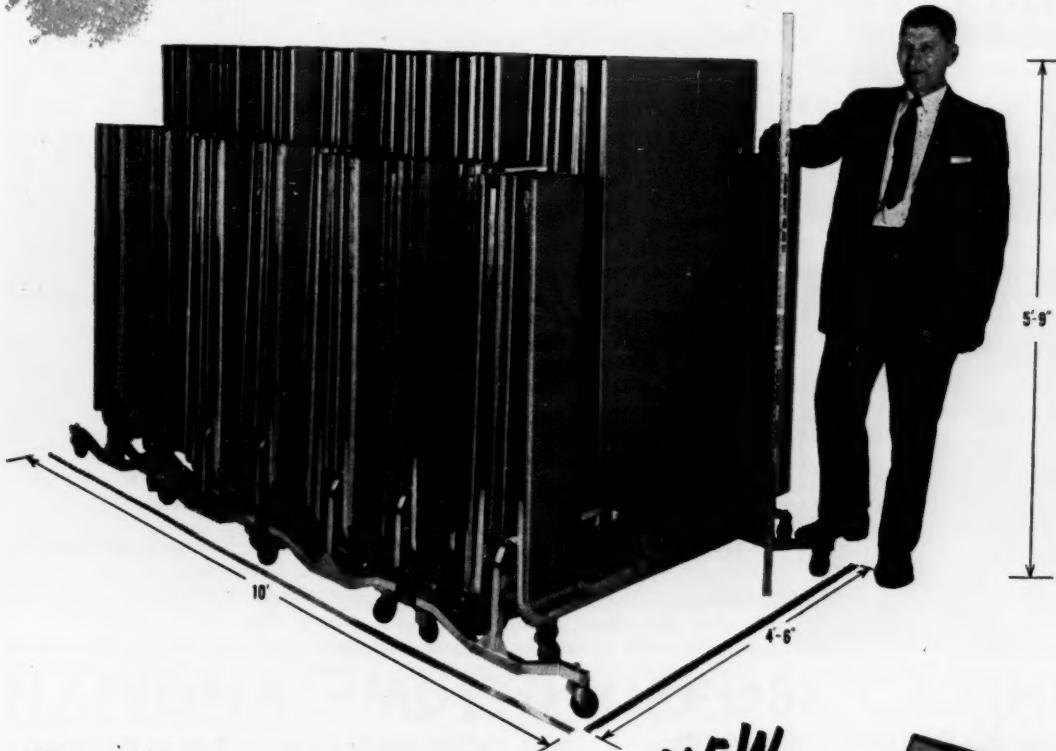
"Food is very important in our lives," she declared; "it has made us what we are, and will make us what we are going to be." She said that studies show that many students go to school in the morning without breakfast or with a poor one, so the good noon meal is especially important. "You can't teach a hungry student," she said.

Dr. Bryan outlined four steps whereby the school lunch can contribute to the solution of health problems. These are: (1) provide maximum efficiency in physical environment; (2) through proper scheduling, reduce the time students stand in line, and give them more time to eat; (3) have alert and interested teachers—everybody needs nutrition, and (4) provide teaching materials on nutrition to teachers. Dr. Bryan also suggested ways of using the lunchroom to integrate nutrition with other subjects.

(Cont. on p. 56)



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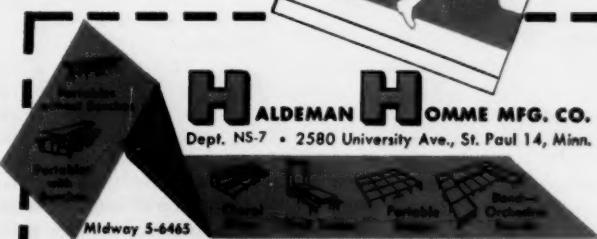
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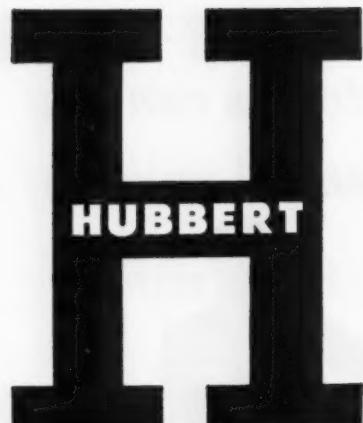
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Uses Psychology in Encouraging Students to Eat Proper Lunch

DECATUR, ILL.—Food technologists, cafeteria supervisors, and delegates from the Illinois area and vicinities congregated here April 18 and 19 for the eighth annual convention of the Illinois School Food Service Association in which close to 60 exhibitors set up shop.

Cylvia A. Sorkin, business consultant, economist, author and lecturer on personnel, business and financial management, was the convention's guest speaker. Demonstrating school lunch equipment again this year was Halbert Bolin, food technologist with the Midwest Office of the Food Distribution Service, U.S. Department of Agriculture.

A dozen discussion leaders were lined up for the afternoon sessions, which broke up into 10 discussion groups. At the group session on menu planning and evaluation, Ruth R. Goodman, director of cafeterias, Downers Grove public schools, described the school lunch program in her own area. Since the program is built around the menus, Miss Goodman pointed to the importance of "psychology" in dealing with their students.

TRY FAMILIAR FOODS

To encourage students at Downers Grove to eat the Type A lunch, they are offered foods which the students are thought to like and be familiar with. It has been found that students prefer a few familiar items rather than a great variety of unfamiliar foods. It was also found that students who "eat out" often are better acquainted with unfamiliar menu items and are more willing to try them.

Miss Goodman also mentioned factors other than the nutritional needs of students that influence menu planning: geography—climate and weather have something to do with the choice of menus; food and labor costs; utilization of human resources, and availability of modern equipment for food preparation.

Food service problems in parochial schools were discussed by Sister Mary Donata, head of the home economics department, Cardinal Stritch College, Milwaukee. Sister Donata stressed the importance of a good public relations campaign to make the public understand the implication of the school

lunch program—not only that it is for the feeding of children, but that it is an essential phase of the total educational experience. The solution of other problems, such as equipment for the physical plant, quality of personnel, and facilities for training as well as self-improvement of personnel, record keeping, and financing will be easier to solve when an enlightened public understands and appreciates the importance of school lunch, she asserted.

The association's president is Jane Henry, Alton, Ill. Gretchen Ganschinetz, East St. Louis, Ill., is president-elect.

Dishes Are Scaled to Child Size and Appetite

CHICAGO.—Dishes of different sizes are used for serving a single food in the schools of Trotwood, Ohio, reported Supt. Mark Shellhaas in a panel discussion at the 39th annual convention of the National Restaurant Association here early in May.

The dishes are of three sizes—small, medium and large—so that little children can take the smallest servings and older children the largest. This plan also permits pupils to select food in the quantity that appeals to them and helps to cut down on food waste.

Most of the food is cooked in the oven, instead of on top of kitchen ranges.

Superintendent and Mrs. Shellhaas, who is the lunchroom supervisor, reported that the schools have 95 per cent participation in the lunch program.

At the same panel, a newspaper reporter, Vivian Kawatzky of the *Milwaukee Sentinel*, described feature stories that her paper publishes each week about the school lunch program.

A TV consultant, Marguerite Robinson of the American Institute of Baking, told the audience how information about school lunch was used in public affairs programs on educational TV.

Coordinator of the panel was Jennie Trigg, school lunch director for the city schools of South Bend, Ind.—Reported by Mary deGarmo Bryan.

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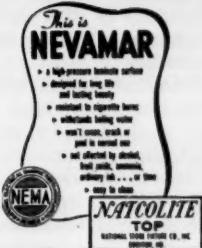
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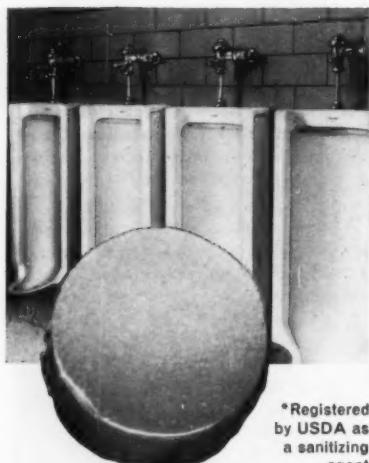
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School Finance

(Continued From Page 43)
under civil service would assure a more adequate property base.

Assessments should be at least 40 or 50 per cent of the true value of property instead of the present nationwide average of about 30 per cent. Some states assess at as little as 5 per cent of market value.

Improving state foundation programs. There is a tendency to adopt school foundation program appropriations of the open end type, which permit use of funds as current needs dictate. States increasingly are guaranteeing adequate quality programs, rather than prescribing a minimum starvation diet. The foundation program should be comprehensive enough to incorporate all elements of school costs, including administration, special services, and construction.

The local superintendent should not be hamstrung by the technology of the program. Too much detail can result in too much centralized control. Record keeping and reporting are necessary, but control of educational specifications should be avoided.

Strengthening public support. The first step is to get agreement among educators. The local school people and lay people should work together toward an agreement on, and understanding of, basic objectives and goals of education in terms of the local community. If there are conflicts in the objectives, there will be resistance to the support of the program.

Lay committees should determine for themselves whether if by spending more money they will get a better quality of school, as interpreted locally. What should be the scope of the program? What does the community want to accomplish through its schools?

Immediate steps have not always been consistent with long-range goals. If the over-all objectives of the community have been arrived at on the basis of understanding and discussion, there will be less trouble with current bond issues.

Federal support. Local and state revenues alone will not be able to finance education in the years ahead, so national tax money will have to be used in addition to local and state funds. The federal government must assume greater responsibilities for public education.

To overcome the fear of federal control, school boards should acquaint themselves with the rôle played by the federal government in past years. Also, they should learn about ways in which our laws can be drafted so there can be no control beyond fiscal reporting, which is not control.

More mileage per dollar. Some things in education cannot be done halfway; a complete job or nothing must be done. Management factors must be studied

constantly to assure that procedures and practices are kept up to date and that the organization is strengthened.

Often nothing much can be done in this area until a district has been properly organized. Consolidation can achieve values not possible in a small, inefficient district. Its chief aim is not to save money—in fact, it inevitably means more outlay. The purpose is to create a proper basic environment in which the pupils can work better.

Financing school construction. There has been a sharp reduction during past months (to May 1958) in bond sales, both because of fewer offerings and of fewer bond issues carried.

Thirty-eight of the 48 states have state schoolhouse construction plans, and all states, with one possible exception, are using federal funds in one form or another.

Pledging future revenue to pay for school construction debt may prove a serious threat to operating efficiency through the years ahead. Raised assessed valuation increases the bonding power.

Reforming property tax. If our objective is to bring about equitable assessment, there must be provisions within the state aid laws that will protect the community that is doing more for itself than other communities from losing state aid.

Property tax is not suited to changing requirements and conditions of passing years. Yet it is a big revenue producer for schools, which it took a century to build up. Care should be exercised so that this source of revenue is not lost in our concern for its shortcomings. Nevertheless, other possible sources of revenue should not be neglected.

Broadening the tax base. In their attempts to uncover other sources of school revenue, various states have utilized the following: property transfer and per capita tax; sales tax on cigarettes, liquors and beer; utilities, sales and telephone tax, and amusement taxes.

In Pennsylvania, under the plan in operation since 1947, school districts during 1956-57 levied some 21 different taxes.

DIRECTIVES TO N.E.A.

Among specific recommendations made to the tax education and school finance committee was that it take a national inventory of state experiences with the compulsory sharing of state taxes for schools.

Another question referred to the N.E.A. committee was: What are the features of good plans for state assistance on schoolhouse construction?

By formal resolution the conference requested the N.E.A. and its committee to deal with school financing as one of the most important parts of the school program.—L.E.B.

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wire from Washington By EDGAR FULLER

School bond sales decline

► There was a 45 per cent decline in the value of school bonds approved during the nine months ending in March 1958 compared with the same period a year ago. This startling information has been compiled by the Office of Education from data supplied by the Investment Bankers Association of America.

Each year the value of school bonds voted upon in November is greater than in any other month. In November 1956 the bonds voted upon amounted to \$448,800,000, of which \$423,500,000 were approved. One year later, in November 1957, the bonds voted upon were valued at \$232,200,000, of which only \$149,200,000 were approved. The voters rejected 35.8 per cent of the proposed bond issues in November 1957, compared with only 5.6 per cent a year earlier. During the first three months of 1958 they rejected approximately 25 per cent of all school bonds.

This discouraging news on financing school facilities comes at a time when the preschool population is by far the largest in history. School facilities will become even less adequate as the effects of the current decline in the sale of school bonds are reflected in the construction of fewer buildings throughout the country.

The most encouraging note is that interest rates on school bonds now average less than 3 per cent, compared with more than 4 per cent late last year. This incentive to construct schools has been offset by the fact that school construction costs have only recently leveled off.

Federal-state action

► Just one year after the President proposed the creation of a Joint Federal-State Action Committee in an address before the Governors' Conference of 1957, the Governors' Conference of 1958 quietly loaded so many conditions on most of the committee's recommendations that the practical effect is almost a veto. The governors gave general support to a statement that there should be increased effort by the states in areas of governmental activity which will continue to be federal-state-local responsibilities, such as the peacetime use of atomic energy, some limitations on federal aid to the states for disaster relief, and an increase in state efforts in ur-

ban development, housing and metropolitan planning. This was routine.

The governors dealt harshly with the more important Joint Committee proposals that certain functions now financed partly by the federal government should be financed wholly by the states, saying these "should be implemented only on the following bases: (1) that adequate time be allowed for adjustment through a practical procedure at both levels to ensure that there is no impairment of the programs, and (2) that modification of the tax relinquishment recommendation be made by the Joint Committee to ensure that the revenue source made available to each state is substantially equivalent to the cost of the functions to be assumed." These conditions were applied to the controversial recommendation asking the federal government to discontinue its grants for vocational education of below college grade.

From the time we heard the President speak to the governors in 1957, we have thought the program of the Joint Federal-State Action Committee to be impracticable. At first the National School Lunch Program was included, but that was quietly dropped last year by the Joint Committee itself. The chances are that most of the other proposals will also be dropped. If the issue is forced, Congress is almost certain to refuse to support the Joint Committee's program, especially the proposal to eliminate federal funds for vocational education of below college grade.

School lunch compromise

► In the *Wire* for May, we described in detail how the House of Representatives had maintained the \$100 million for the National School Lunch Program intact for next year, but had added a mandate to the U. S. Department of Agriculture to purchase additional fresh foods for school lunches to the extent of \$55 million under Section 6 of the National School Lunch Act. The Senate disagreed. It eliminated the \$55 million for foods but increased the cash appropriation to \$125 million. Then the joint Senate-House conference committee produced a compromise, increasing the cash to \$110 million and authorizing increased purchase of foods under Section 6 to the amount of \$35 million. Both Senate and House have accepted the compromise, and President

Eisenhower is expected to approve the bill.

So far as vocational education is concerned, the appropriation for next year is exactly the same as that for the current year. Congress would probably allow additional funds for the new practical nursing and fisheries training if the states could start new local programs more quickly, but the states have been given all the federal funds for these purposes that they need for next year.

The President has said he intends to recommend *no* federal funds for vocational education of below college grade in the Administration's budget for fiscal 1960, but in view of the situation on the Joint Federal-State Action Committee's recommendations he may decide to do so. If he omits the amounts, Congress will probably vote them anyway. Then the President could carry on the fight only by vetoing an entire appropriation bill, a remote possibility.

To expedite ETV

► On May 29, the U. S. Senate passed S. 2119, introduced by Senator Magnuson of Washington, providing not to exceed \$1 million for grants to state departments of education, special television foundations or commissions, or institutions of higher education to expedite the use of television in public schools and colleges and adult education programs in the states and territories.

New H.E.W. Secretary

► When Arthur S. Flemming becomes the Secretary of the Department of Health, Education and Welfare late in July, he will succeed perhaps the most popular member of the Cabinet ever to have authority over the U. S. Office of Education. Most educators in Washington sincerely deplore the retirement of Marion B. Folsom, but many believe his successor may prove to be an excellent choice. Others fear that the personable and brilliant new Secretary may not leave the Office of Education quite as much professional freedom as it has enjoyed under Secretary Folsom.

The new Secretary came to Washington upon graduation from college and earned an M.A. degree at the American University and a law degree at George Washington University while teaching and working at part-

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More than just a convenience, vendors for Kotex feminine napkins provide a needed and appreciated service for your students and teachers. Available without charge, these handy, coin-operated vending machines make Kotex readily available at all times.

When you offer Kotex, you provide the feminine napkin most women prefer. Only Kotex has Wondersoft—the gently spun covering that *won't rub, won't chafe...* and Kotex has the extra absorbency that's instant and complete.

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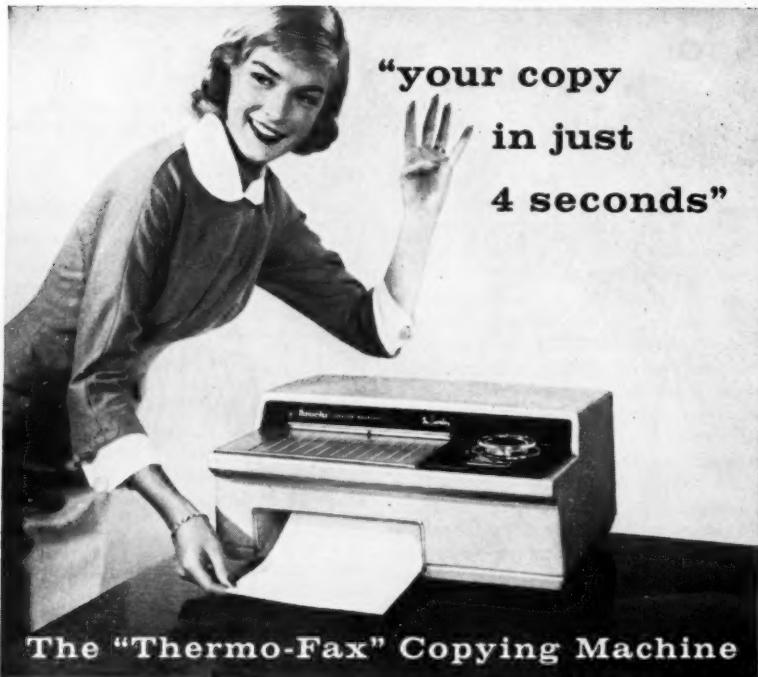
Please send information on the Kotex Educational program.

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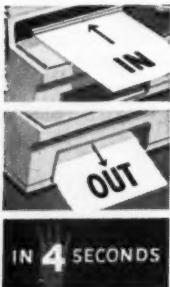
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time jobs. In 1948 he returned to Ohio Wesleyan University as president, but he has been in Washington a great deal since then. His career in the federal government has been extremely varied and uniformly successful.

Early in 1953, when Dr. Flemming was a member of the President's Committee on Government Organization, we had a long talk with him about the scheduled inclusion of the U. S. Office of Education in the new H.E.W. Department. He was gracious and understanding, but said that the Office of Education should be directly in the line of authority from the President through the H.E.W. Secretary, and that a National Board of Education as an independent agency with authority to appoint the U. S. Commissioner of Education would be a step in the wrong direction. A conference on Jan. 2, 1953, with Milton Eisenhower, another member of the President's committee, had already made it clear that his position was essentially the same.

In February 1953, a conference was held with President Eisenhower himself, during which eight chief state school officers and others argued, in the presence of Dr. Flemming and Federal Security Administrator Oveta Culp Hobby, that the Office of Education ought to be made an independent agency. At the end of that conference the President asked Mr. Flemming to arrange for a more detailed discussion with leaders of the group. A week later the three members of the President's Committee on Government Organization, with Chairman Nelson Rockefeller presiding, met for more than two hours with a delegation representing the chief state school officers. The President's Committee and Mrs. Hobby declined to consider any other structure for the U. S. Office of Education in the federal government, and the delegation refused to approve the suggestion that a special assistant for education should be placed on the staff of the H.E.W. Secretary or any other alternative to an independent agency. This stalemate continues.

During these conferences we were greatly impressed by Dr. Flemming, but we also had a feeling that he favored certain theories of educational organization associated with political scientists, rather than those favored by most schoolmen.

Perhaps it is inevitable that anyone following Marion B. Folsom would have doubts expressed about him by the schoolmen who have worked so closely with the present Secretary. They hope that the close relationships will continue, with the U. S. Office of Education operating in administrative ways acceptable to educators both in schools and colleges and within the H.E.W. Department. They anticipate that consultations will continue to be held on major educational issues before federal decisions are made.

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From
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secondary teachers... pamphlets listing apparatus and supplies needed for demonstrations and experiments in science courses.

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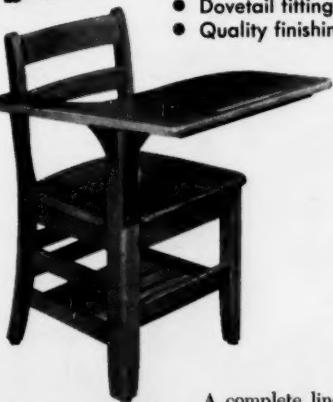
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This compact, precision-built system providing low-cost 2-way communication facilities is ideal for efficient supervision of all school activities. Announcements, speeches and voice messages can be made by microphone to any or all rooms (up to a total of 48); speech origination from any room to the central cabinet is available. Includes "All-Call" feature for simple instantaneous operation. Has input connections for remote microphone, radio, phonograph and tape recorder. Housed in compact, attractive all-steel blue-gray cabinet suitable for desk or table. When combined with the S404 matching radio-phonograph below, a complete centralized school sound system is achieved at a remarkably low cost, within the means of even the smallest school.

MATCHING MODEL S404 RADIO AND PHONOGRAPH

Combines perfectly with the S224 system. Provides complete facilities for the distribution and control of radio and phonograph programs. Includes precision-built FM-AM radio tuner and high quality 3-speed record player. The matching S404 and S224 units may be stacked compactly to conserve desk space. Together, they form a complete and versatile sound system offering either communication or program facilities at the lowest cost.



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CLASSROOM AIR CONDITIONING more and more is becoming an important factor in school design. Architects everywhere are recognizing the trend in their structural considerations for school buildings.

Educators, too, are thinking—talking—stressing air conditioning. They have found that classroom temperature, air movement and humidity have a direct bearing on learning and development. They realize that it is just as important that a child be comfortable in hot weather as in wintertime.

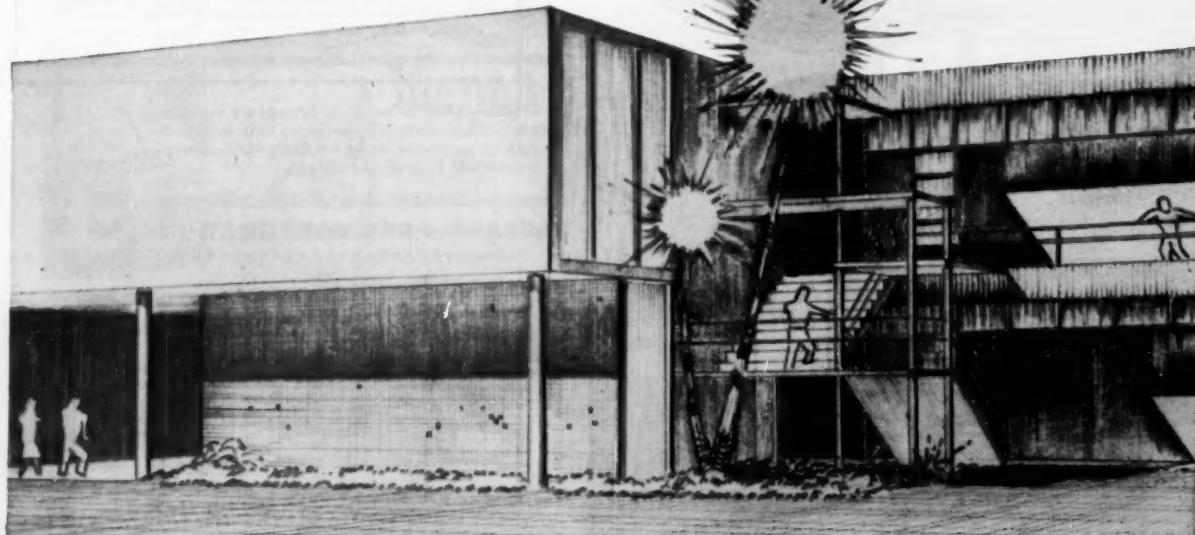
For these reasons, many schools are already air conditioned, or are planning for it in the future. Throughout the country, the need for air conditioning is being reflected again and again in basic school design. The building plan shown on these pages is an outstanding example.

Because of air conditioned design, this school building (including parking facilities) consumes only 1.2 acres, instead of the customary urban Florida total of 3.1.

Number four of a series . . .

The herman nelson file of

Entrance to public waiting room from parking area (left), and (right) exterior stairway to second floor.

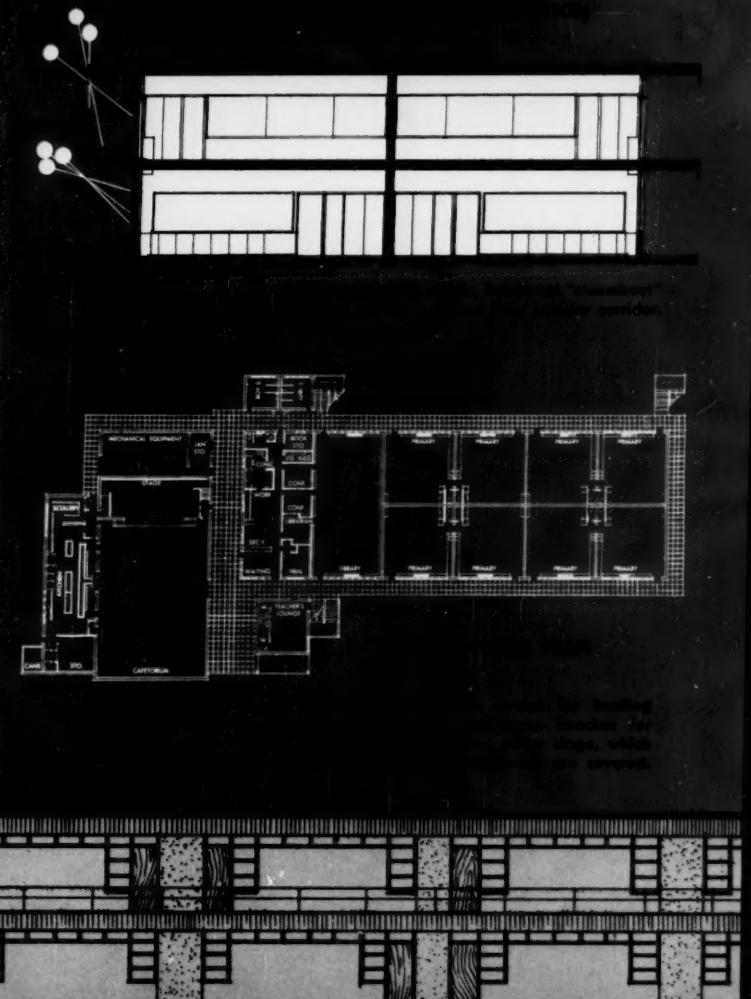


**A Florida firm designs
school that saves money
because it's
AIR CONDITIONED**

The design of a 20-classroom, 2-story urban Florida elementary school by Connell, Pierce, Garland and Friedman, Miami, Florida, factually proves that, in many instances, air conditioned schools can actually save money on capital investment and, at the same time, completely offset the increased operating cost of the air conditioning system.

HOW CAPITAL INVESTMENT IS SAVED — This school was designed for a densely-populated area of Florida. To take full advantage of natural cross-ventilation and avoid noise distractions, conventional schools have had to be spread out and sprawling. This required large plots. Since school boards have paid as much as 50 to 60 thousand dollars per acre for school property, total acreage is an extremely important cost factor.

Because of air conditioned design, this building consumes only 1.2 acres instead of the customary urban Florida total of 3.1 acres. Thus, 1.9 fewer acres are needed. The resulting capital savings are in direct proportion to the cost of land.



air conditioned school design

HOW OPERATING COST IS OFFSET — Normally, a school of this size requires four custodians. In this air conditioned design, dust conditions are alleviated to the extent that only three custodians could adequately handle the work. The resulting salary savings would bring the operating cost of the air conditioning system down to \$5 to \$10 per day.

Many state school laws (including Florida's) provide that incremental teachers' salaries be paid from State to County School Systems on the basis of average daily attendance, rather than enrollment. County taxes must make up the difference when there are mass absences. There is evidence to prove that attendance at an air conditioned school is from three to eight percent greater than at a non-air conditioned school. Thus, increased attendance would further reduce the cost of operating the air conditioning system.

Savings made possible by (1) elimination of typical heating system (2) elimination of cross-ventilation breeze sashes (3) reduction in size of main windows (4) elimination of top windows (5) use of plate glass plus only two operating windows (6) use of 9'-6" ceilings, and (7) use of only one door per classroom \$41,400

Cost of combined air conditioning and heating system, using Herman Nelson air conditioning unit ventilators \$75,000

Cost of air conditioning over and above saving . \$33,600

Assuming cost of land to be \$25,000 per acre, using 1.9

fewer acres would save \$47,500

Actual capital savings directly attributable to air conditioned

design \$13,900

Approximate operating cost per day of air conditioning equipment, allowing for days when only fans would be in operation. \$10 per day

Elimination of one custodian at a salary of approximately \$3,000 per year, will reduce this to \$5 to \$10 per day.

The percentage increase in average daily attendance would more than offset this operational cost.

— 10 —

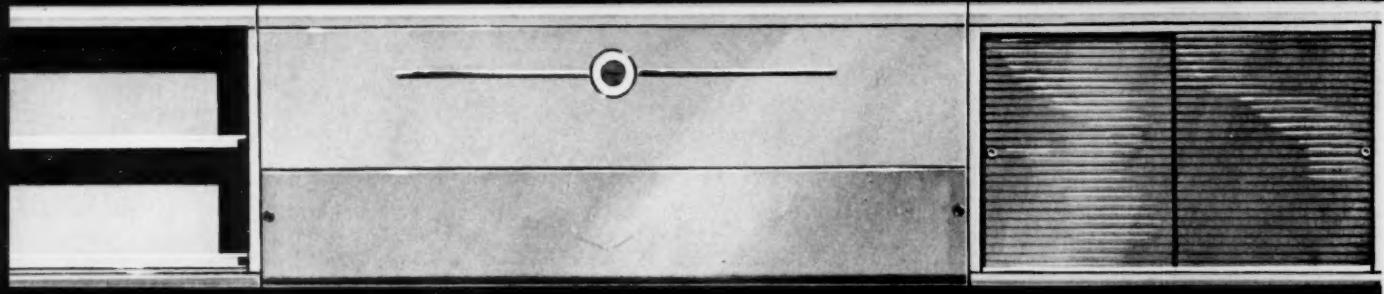
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UNIT VENTILATOR

with optional air conditioning



already selected by more than 100 schools

Will the school you are planning ever need air conditioning? The answer is definitely—yes. Architects and educators agree on the importance of the proper learning environment. And only air conditioning can assure that your school will have it when the weather outside is warm.

That's why today—less than a year after its introduction—the HerNel-Cool II unit ventilator with optional air conditioning has been selected for use in more than 100 schools, which are either air conditioned now or have planned for it.

HerNel-Cool II is the first unit ventilator to offer optional air conditioning, as well as heating, ventilating and natural cooling (with outside air). Units can be installed so the school enjoys the usual ben-

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UNIT VENTILATOR

System of Classroom Cooling

JUST HOW MUCH DOES PROVISION FOR FUTURE CLASS-ROOM AIR CONDITIONING COST? The answer is: probably far less than you think—when you install HerNel-Cool II air conditioning unit ventilators. Actually, it costs only fifteen to twenty cents per square foot more than the cost of basic heating and ventilating equipment in average new construction—or between one and two percent of total building cost. Complete, immediate air conditioning is approximately fifty to fifty-five cents more.

By using Herman Nelson unit ventilators, schools have held heating and ventilating costs—including provision for future air-conditioning—to a total of less than \$1.35 per square foot. Other schools have heating, ventilating and immediate air conditioning—for a total per square foot cost of less than \$1.70! (And, in many cases traditional design concepts were used.) These are current costs, too! HerNel-Cool II unit ventilators have been available for little more than a year.

Look at the costs shown below. They are particularly interesting when you realize that they are truly representative—for Herman Nelson equipped schools in all parts of the country.

TEN SCHOOLS ON WHICH BIDS WERE TAKEN ON HERMAN NELSON UNITS FOR HEATING AND VENTILATION ONLY

School	Total Cost	Total Cost Per Sq. Ft.	Heating & Ventilating Cost Per Sq. Ft.	Per Cent of Total Cost
A	\$ 659,000	\$15.33	\$1.15	7.6
B	416,211	9.05	1.13	12.4
C	435,270	11.21	1.48	13.2
D	131,223	9.00	1.98	22.0
E	260,164	13.56	1.47	10.9
F	1,740,746	11.27	1.25	11.1
G	577,149	9.39	1.07	12.9
H	310,178	9.84	1.05	10.7
I	344,291	10.43	1.11	10.7
J	118,147	12.38	2.09	16.6
Average	\$ 426,564	\$11.05	\$1.38	12.8

SEVEN SCHOOLS ON WHICH BIDS WERE TAKEN ON HERMAN NELSON UNITS FOR HEATING AND VENTILATION PLUS FUTURE AIR CONDITIONING

School	Total Cost	Total Cost Per Sq. Ft.	Heating & Ventilating Cost Per Sq. Ft.	Per Cent of Total Cost
K	\$ 666,000	\$15.49	\$1.32	8.5
L	423,511	9.21	1.29	14.0
M	356,800	10.04	1.55	15.4
N	2,813,000	15.44	1.78	11.5
O	2,745,381	16.54	1.74	10.7
P	1,311,000	10.40	1.35	14.9
Q	500,000	13.63	1.72	11.0
Average	\$ 1,259,385	\$13.25	\$1.57	12.3

Avg. add. cost provisions for future air conditioning...0.19

FIVE SCHOOLS ON WHICH BIDS WERE TAKEN ON HERMAN NELSON UNITS FOR HEATING AND VENTILATION PLUS COMPLETE AIR CONDITIONING

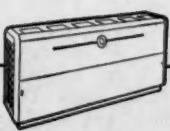
School	Total Cost	Total Cost Per Sq. Ft.	Heating & Ventilating & Air Conditioning Cost Per Sq. Ft.	Per Cent of Total Cost
R	\$ 690,000	\$16.04	\$1.88	11.7
S	371,100	10.44	1.95	18.7
T	406,463	14.38	2.41	16.8
U	360,700	13.11	2.22	16.9
V	1,094,387	11.55	1.68	13.8
Average	\$ 584,530	\$13.10	\$2.01	15.6

Avg. add. cost for complete air conditioning...0.71

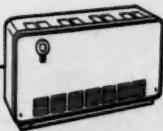
try. Locations range from California to New York, from Wisconsin to Georgia.

Complete cost studies—for schools employing immediate air conditioning as well as for those which are planning for its installation later—are available upon request.

Get all the facts now. Classroom air conditioning—immediate or eventual—is being included in more and more school planning. You'll want to consider it in yours. Write today to Herman Nelson Unit Ventilator Products, American Air Filter Company, Inc., 215 Central Avenue, Louisville 8, Kentucky. In Canada: American Air Filter of Canada, Ltd., Montreal 9, Quebec.



Hot water or steam unit ventilators



Amervent unit ventilators



Electric unit ventilators



UniVent gas-fired unit ventilators

NEWS IN REVIEW

Harold B. Gores Will Head Educational Facilities Lab



Harold B. Gores

NEW YORK.—Harold B. Gores, superintendent at Newton, Mass., has been named the first president of the newly created Educational Facilities Laboratories, Inc., 477 Madison Ave.,

Alvin C. Eurich, chairman of the board of directors, recently announced. Mr. Gores will assume full-time direction of the laboratories on September 1.

The Ford Foundation established the laboratories recently with a \$4.5 million appropriation as an independent, non-profit organization concerned with research and experimentation to improve school and college facilities. It will serve as an information clearinghouse, making its findings available to school and college administrators, architects and citizen groups. Selected projects will receive grants for experimentation and research, but the participating agencies will contribute building and operational costs. Advisory groups will be appointed.

INDEX TO THE NATION'S SCHOOLS

The index to the first six issues of this year's magazine (January through June 1958, Vol. 61) has been printed separately. Send a note or postcard for your complimentary copy. Printed copies of the index for Vol. 60 (July through December 1957) still are available. Those persons who have previously written for the index to Volume 60 (July through December 1957) will be sent the latest index without further correspondence.

The board of directors consists of 11 members, in addition to Mr. Eurich, who is vice president and director of the Fund for the Advancement of Education, and Mr. Gores. Only three are educators: Benjamin C. Willis, superintendent of Chicago public schools, and two university presidents—James L. Morrill, University of Minnesota, and Frederick L. Hovde, Purdue University. The other directors are a board chairman of an insurance company; a lawyer; an industrial designer, and presidents of a broadcasting system, an aircraft and electronics corporation, a real estate corporation, and a business machine corporation.

Strengthening Family Life Cited as Chief Concern of Community at Convention of P.T.A. Members

OMAHA, NEB.—The importance of the home in promoting the welfare of children and youth was emphasized to 3500 delegates representing 11 million P.T.A. members from the U.S., Hawaii, Alaska, and American military bases in Europe at the 62d annual convention here of the National Congress of Parents and Teachers May 18 to 21.

Mrs. James C. Parker of Grand Rapids Mich., who succeeded Mrs. Rollin Brown of Los Angeles as president of the nation's 44,000 P.T.A.'s, drew attention to the goals outlined by the national organization for the coming year.

These goals are: to strengthen the home as "the basic unit in the structure of our society" and to help parents in their relations with their children; to improve standards of employment for teachers and to raise their professional status and competence, and to take the lead in establishing school library facilities where local school boards "cannot possibly provide" adequate libraries.

An 11 point statement of principles spelled out the P.T.A. stand on: educational opportunity, international understanding, civic responsibility, human values, spiritual faith, good homes, sound health, safety, vocational competence,

conservation of natural resources, and constructive leisure.

The conference theme centered on the family and the community: how each shapes the other, and how the P.T.A. serves both. Symposia were on the changing social scene in America and the government's rôle in meeting the needs arising from the changing scene. Special meetings also discussed the changing urban and rural scene.

Addressing the delegation, A.A.S.A. President C. C. Trillingham said: "The battle for quality education will not be won in Washington or in our state capitals, but in local neighborhood schools throughout the land where dedicated teachers and understanding parents work together for the full development of all children and youth, and where school board members and administrators combine their efforts to provide the necessary facilities and conditions for good teaching and learning."

In addition to Mrs. James Parker, the following national officers were also installed: first vice president, Mrs. Clifford N. Jenkins, Long Island, N.Y.; secretary, Mrs. A. Kenneth Spencer, San Gabriel, Calif., and treasurer, Galen Saylor, Lincoln, Neb.

Overcrowded Classes Mar City School Picture This Year

WASHINGTON, D.C.—The trend in urban grade schools continues to be overcrowded classes. Fifty-five per cent of city grade school children attended classes with more than 30 pupils this year, the N.E.A. reported in a new study.

Ray C. Maul, assistant director, N.E.A. Research Division, in his study titled "Class Size in the Elementary Schools of Urban School Districts, 1957-58," shows that no progress in reducing class size has been made since a similar study in 1955-56. Highlights of the study are:

The average grade school class size is 30.1 in all urban school districts combined, which means half the students are in classes larger than 30.

Almost 300,000 students in city grade schools were on half-day schedules this year, as compared to just under 250,000 in 1955-56.

More than 31,000 new classrooms and teachers would be required right now to level off the larger than 30 student classes to that size. "Those thousands of extra classrooms needed to cut down class size will not be coming unless we have a strong school construction drive," said Mr. Maul.

Increase in class size instead of reduction is the prevailing pattern in all areas. The larger the city, the greater the odds that the class is an overcrowded one.

St. Paul Superintendent Joins TNS Editorial Advisory Board



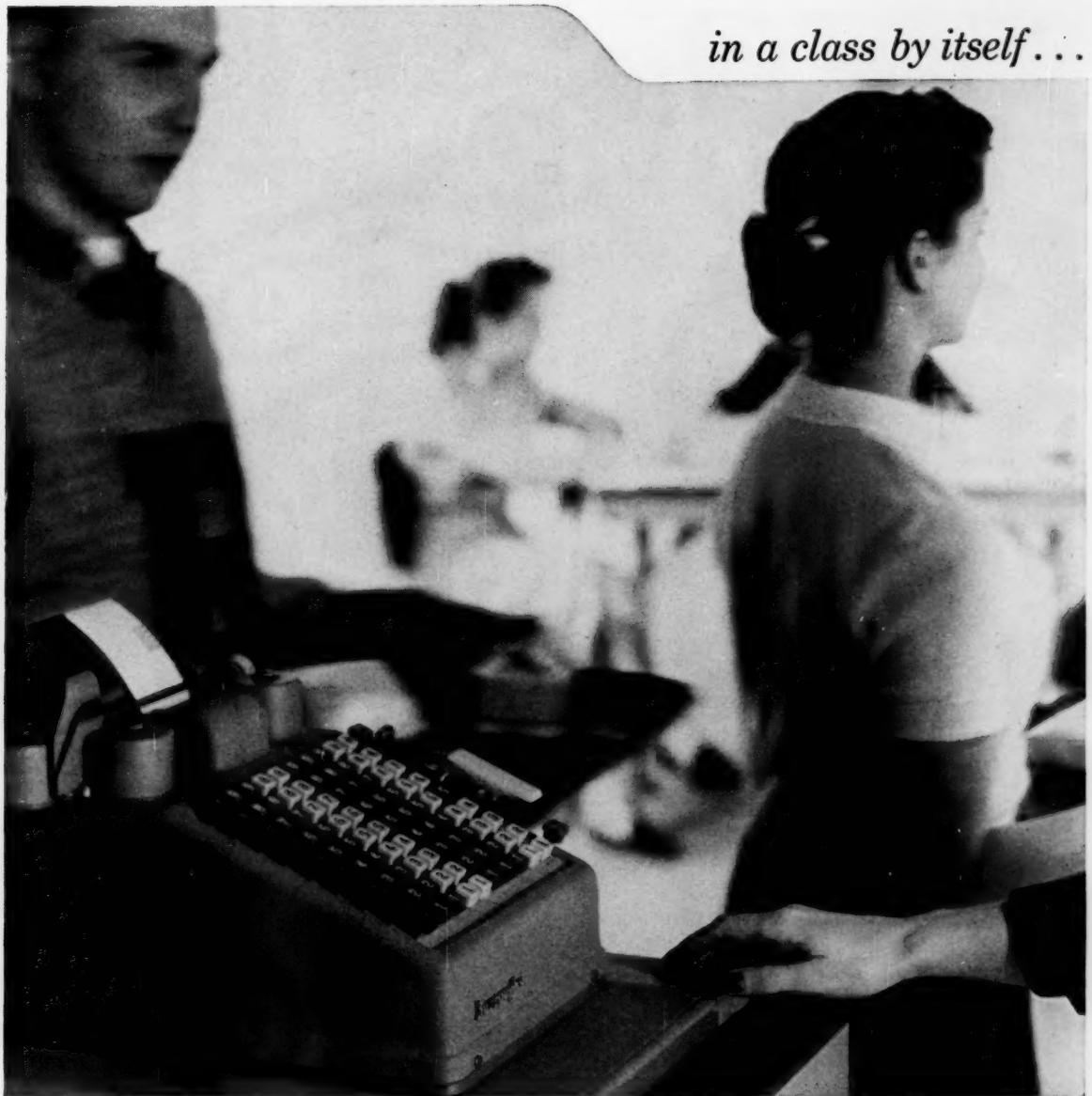
Forrest E. Conner

A city superintendent who has been receiving national acclaim for his brand of school administration, Forrest E. Conner, has accepted appointment for a two-year term as a member of the editorial advisory board of *THE NATION'S SCHOOLS*.

Dr. Conner succeeded Selmer Berg as superintendent of the St. Paul schools in 1949. Opportunities to introduce some of the better practices of school administration were afforded him when the city changed from the old city commission form of school direction to the school board plan.

The press has described Forrest as a man "who wears a Ph.D. gracefully." And well he can, for Dr. Conner is a former football, track and baseball star at the University of South Dakota, weighing 203 pounds and standing 6 feet 3 inches. (Cont. on p. 70)

in a class by itself...



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*automatically codes and details
food sales on locked-in audit tape*

The Burroughs Itemizing Cash Register puts in your hands every feature you need to run the cash side of your cafeteria operation in apple-pie order.

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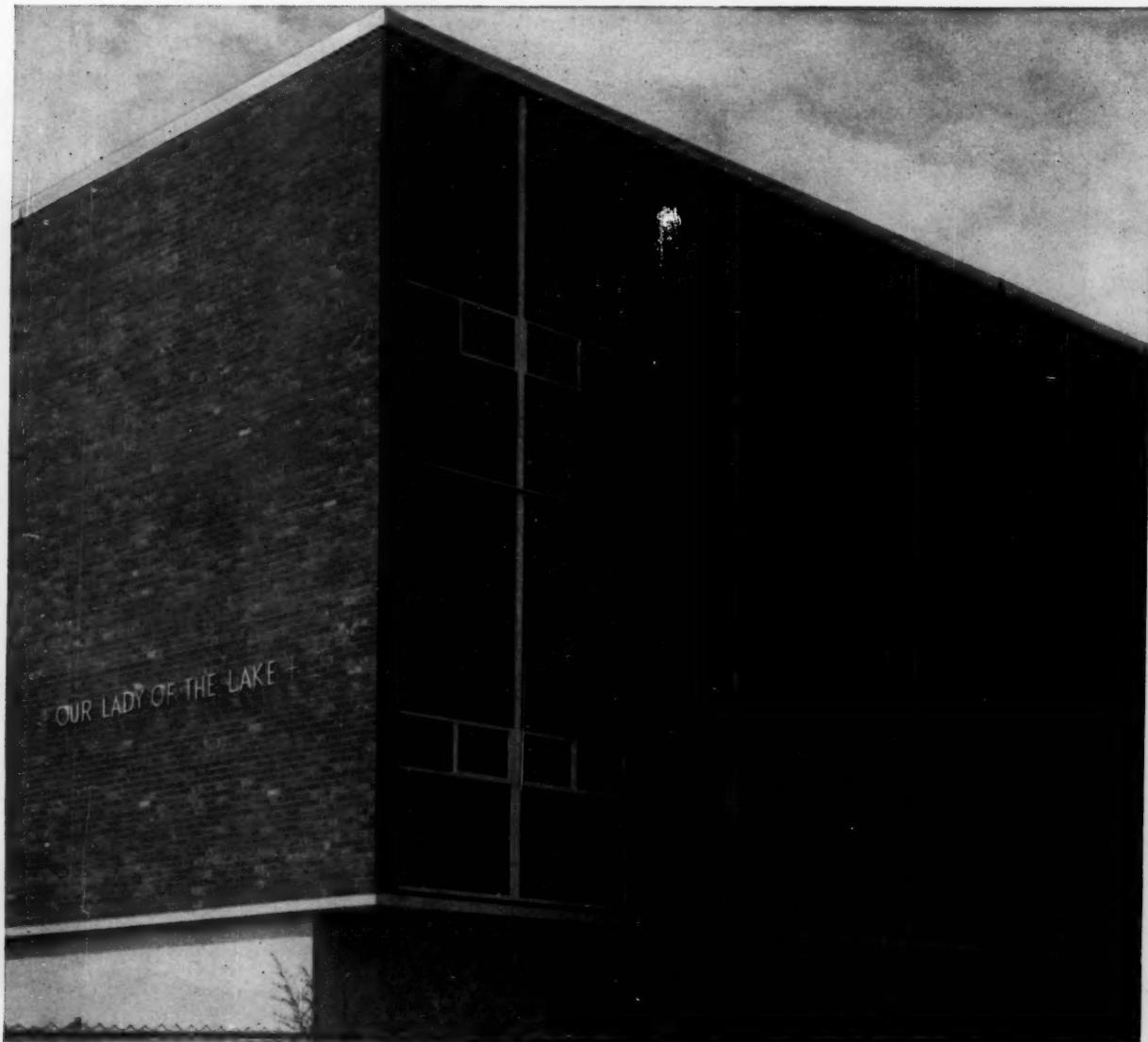
And the Burroughs Itemizing Cash Register helps you keep those lunch lines moving, too. The popular short-cut keyboard permits faster, accurate check-out accounting. When the cashier takes a total, the cash drawer pops open and the receipt automatically spaces for easy removal. Turn a key and you automatically have an

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The transparent PENNVERNON not only lets in the sunlight, but it opens up a superb view of the outside to keep the students from feeling "restricted." Colored SPANDRELITE adds to the building's striking appearance and, with the PENNVERNON, provides a curtain wall that's weather-resistant and easy to clean.

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GLASS



SYMBOL OF SERVICE FOR SEVENTY-FIVE YEARS
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New Board Member

(Continued From Page 66)

The nation's respect for Dr. Conner's achievements is expressed by the fact that the members of the A.A.S.A. recently elected him as their vice president.

His physical endowments still serve him effectively as, for example, the time that he was protesting purchase of a certain type of school desk. Offering to test the model, he began to seat himself in that desk and unexpectedly proved his point when the desk broke and dropped him to the floor.

After serving as superintendent and coach at Belle Fourche, S.D., for 10

years (1925-35), he took time to work on his Ph.D. at the University of Iowa. From there he went to Hibbing, Minn., where for seven years (1937-44) he served as director of secondary education. Then followed five years as superintendent at Kenosha, Wis.

Dr. Conner is a member of many civic boards and professional groups. He is past president of Wisconsin Association of School Administrators.

Protestant Groups Advocate Religion in Public Schools

CHICAGO.—The Church Federation of Greater Chicago recently declared, in a

provisional policy statement, that religious values can and should be taught by the public schools in a nonsectarian manner.

The 10,000 page document, described as "one of the most significant" ever produced by the federation, required three years of preparation. It was prepared by the Commission on Religion and Education with Edward H. Stulken, principal of the Montefiore Social Adjustment School, as chairman.

The document will be classed as "provisional" until reviewed by the 27 Protestant denominational bodies in the federation's membership.

The document declares that "although most Protestant churches are committed to the principle of public education as an essential in democracy, there is developing a concern about the fact that public education has become increasingly secularized in content as well as being secular in control.

"When religion has no place in educational practice the young may get the impression that religion has no place in life," the federation said.

It asks that students be taught the "recognition of God as the basic source of true moral and spiritual values." Public schools should create understanding and respect for religious convictions and customs of people, the document states. Public schools should provide, in the field of ethics and personality development, courses which deal with moral and spiritual values and their functions, it proposes.

Says Integration of Negro Teachers Cost 300 Jobs

DALLAS, TEX.—"The integration of Negro students has not posed a difficult problem, but the integration of Negro teachers is proving more difficult," a social scientist told the annual convention of the Southwestern Social Science Association here.

Virgil F. Dougherty of Oklahoma City University said that the integration of Oklahoma schools has cost 300 Negro teachers their jobs.

"Before integration there were 1537 Negro teachers in Oklahoma," Dr. Dougherty, who has carried out a research on integration, explained, "whereas there are approximately 1200 left."

Wayne State University Considers Trimester Plan

DETROIT.—A "trimester" calendar of three equal 15 week terms has been recommended to the university council of Wayne State University here.

A special committee proposed the plan so that the university might operate "at full capacity by utilizing more fully the faculty and the space." Also, under the trimester system, as little as 32 months would be required for a degree instead of 48 months, the committee declared.

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Educator Team Returns From Exchange Visit With Russia

WASHINGTON, D.C.—Reciprocal visits between American and Russian educators and an exchange of the two countries' educational materials are under way.

The first government sponsored study team of 10 U.S. educators, headed by U.S. Commissioner of Education Lawrence G. Derthick, returned June 10 after a month-long educational survey inside the Soviet Union. A group of Soviet educators will make a similar study of schools and colleges in the United States at a later date.

The team included: Herold C. Hunt, Eliot professor of education, Harvard University, and former Undersecretary of Health, Education and Welfare; Harry C. Kelly, assistant director for scientific personnel and education, National Science Foundation; A. John Holden Jr., state commissioner of education, Vermont; Henry Chauncey, president, Educational Testing Service; George Z. F. Bereday, associate professor of education, Columbia University, and four members of the Office of Education staff: John R. Ludington, chief, secondary schools section; Lane C. Ash, assistant director, division of vocational education; John B. White-

law, chief, teacher education section, and Helen K. Mackintosh, chief, elementary schools section.

Plans for the visit were made by Oliver J. Caldwell, assistant commissioner for international education, Office of Education. Dr. Caldwell made a two-week tour of the U.S.S.R. in April.

The survey has been made possible by the agreement of Jan. 27, 1958, between the U.S. and U.S.S.R. governments on exchange of missions in cultural, technical and educational fields.

Name Headline Speakers at Business Officials' Convention

NEW YORK.—At the first general session of this year's convention of the Association of School Business Officials of the United States and Canada here this fall, the address will be delivered by William H. Alexander, pastor of the First Christian Church of Oklahoma City. Dr. Alexander, considered one of the leading speakers of the country, will be on the program on Monday morning, October 6. The A.S.B.O. meetings will be held here October 5 through 9, at the Hotel Statler.

On Wednesday morning members will hear Mrs. Eleanor Roosevelt, widow of the late president and a former member of the U.S. delegation to the U.N. General Assembly and chairman of the commission on human rights.

Welcoming addresses will be given by Gray N. Taylor, president of the New York State A.S.B.O. and assistant superintendent for business affairs at Schenectady since 1954, and by Jacob Greenberg, deputy superintendent of schools, New York City, since 1953.

Physics Institute Program Started for Schools, Colleges

NEW YORK.—The American Institute of Physics is starting a program to improve the quality of physics taught in high schools and colleges, according to Elmer Hutchisson, director of the Institute.

Objectives of the plan are: to make a basic physics course a requirement for every high school student, to encourage qualified young people to make careers of physics, to evaluate the feasibility of teaching physics by television and color motion pictures, and to strengthen physics instruction in colleges and high schools for nonscience majors.

Report 11,000 Violations of Child Labor Law

WASHINGTON, D.C.—More than 11,000 violations of the Federal Child Labor Law last year, including cases of four year olds working on farms, were reported by Department of Labor investigators.

Secretary of Labor James P. Mitchell included statistics in a report to Congress on enforcement of the Fair Labor Standards Act.

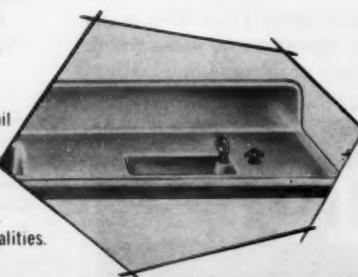


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for versatile
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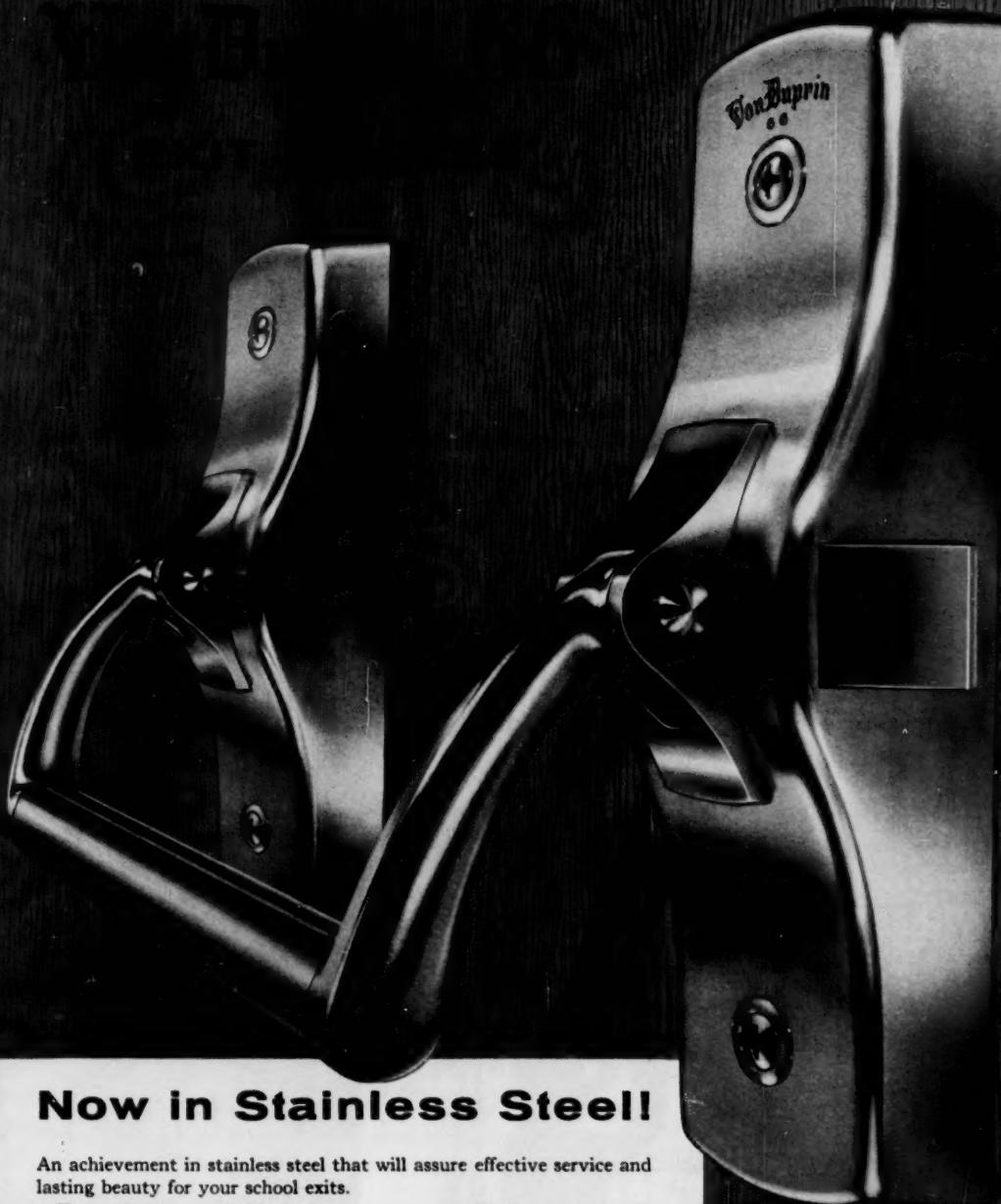
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deck-top, receptor and fountain
in lightweight, tough fiberglass.
Color, too, at no extra cost.
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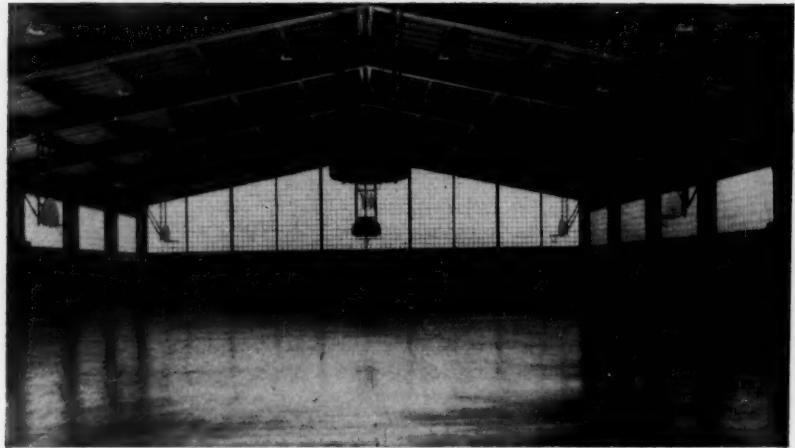
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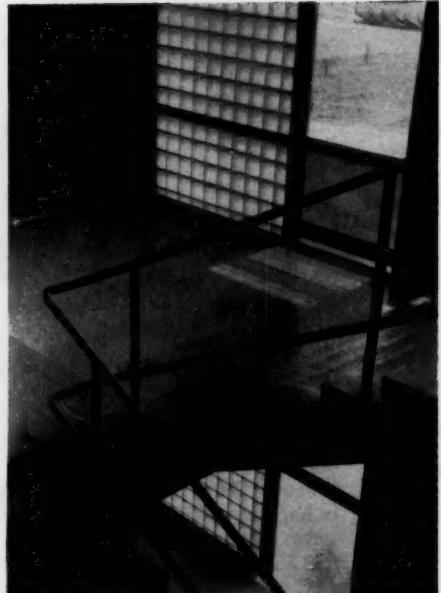


IN GYMNASIUMS—Glass block's prismatic action directs and diffuses daylight to eliminate glare from player's vision; provide structural strength against impact; reduce noise transmission.

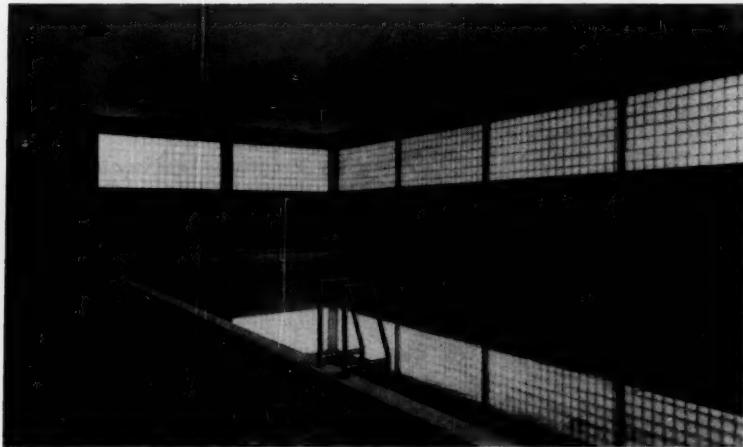
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IN CLASSROOMS—Glass blocks "discipline" daylight to provide maximum learning environment. High insulation value helps reduce heating and cooling costs.



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IN SWIMMING POOLS—Glass blocks control glare, provide insulation value that reduces surface condensation, maintain privacy, safeguard against the deterioration of chlorine.



IN CORRIDORS—Glass blocks "borrow" daylight for corridors. This cuts lighting costs, too.

bring important plus benefits to a variety of your daylighting needs

Glass Blocks are winning favor in a host of school applications. The good reasons why are found in the product's unique combination of benefits. Repeat—unique *combination* of benefits.

For example:

Controlled daylighting *plus* good insulation
Controlled daylighting *plus* privacy
Controlled daylighting *plus* impact strength
Controlled daylighting *plus* noise reduction
Controlled daylighting *plus* draft elimination

Notice in the photographs how some school planners are matching these benefits to their local school applications.

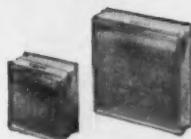
And then there's low maintenance. This glass block feature brings built-in economy to all these applications. Glass Blocks are *mortared* into panels . . . nothing to rust, rot or paint. Breakage is rare. And a once-or-twice a year cleaning is normally adequate.

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PC GLASS BLOCKS—hollow, sealed glass building units that control daylight, provide high insulation value, reduce maintenance expense.

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Two-Year Gains in Teacher Salaries Close to 10 per Cent

WASHINGTON, D.C.—City school teachers received an average pay raise of about 10 per cent—or \$480—in the two years ending June 1957, the U.S. Labor Department recently reported. This was about par with pay increases of factory workers but lower than the raises that were given to office employees of the nation's railroads.

The biggest increases had gone to teachers in cities of a half million population or more. The average increase in these cities was \$800 over the two-year period.

Highest average salary paid public school teachers was in New York, where the average was \$6555. Averages for other cities, employing three-fourths of all urban teachers, ranged from \$4200 to \$6200.

American Teacher Stereotype False, N.E.A.

LINCOLN, NEB.—The American teacher just doesn't fit the stereotype, states the N.E.A. research division in its report, "Status of the American Teacher."

Most teachers are married—88 per cent of the men and 66 per cent of the women. Most are parents. There are

more men teachers than women in the 24 to 34 age group. The male teacher's median age is 36.

Eighty per cent of teachers today plan to continue in the field until retirement.

Three out of four teachers hold bachelor's degrees and one teacher in four has a master's degree.

Average salary of teachers reporting in the N.E.A. study was \$4055. Women averaged \$3932 and men \$4378.

New Program Accelerates Qualified Elementary Pupils

UNIVERSITY CITY, Mo.—The University City Board of Education recently adopted a program of acceleration for qualified elementary school pupils, effective in September. Under the new policy, qualified pupils will be able to complete their kindergarten through sixth grade work in six years instead of the usual seven.

University City school administrators and teachers are preparing standards and methods of selecting children for the program. Although capable children may be advanced, no school work will be "skipped," according to Supt. Robert S. Gilchrist.

"The advancement will come," he said, "only after the child has demonstrated the necessary achievement and physical, emotional, social and intellectual development to us."

University City children are admitted to public school kindergarten only if they reach their fifth birthday by September 15.

Dearborn Subsidizes Teacher Hospitalization Insurance

DEARBORN, MICH.—The board of education here has voted to subsidize up to \$5 per month the hospitalization-surgical and medical insurance premiums of all employees insured with companies on the payroll deduction plan.

Persons now insured on a payroll deduction basis will be automatically covered by the monthly subsidy. Persons who are making direct payments to insurance companies or group insurance plans were to be reimbursed in June on presentation of a receipt for their payments to the payroll department. Employees must have been employed at least one school year to be eligible for the subsidy.

A.V.A. Convention Plans Have Been Completed

BUFFALO, N.Y.—Various special committees of the American Vocational Association have plans formulated for the 52d annual vocational meeting scheduled here on August 11 to 15.

Features of the conference include general sessions, special group meetings, divisional meetings, buffet dinner and a trip to Niagara Falls, business meeting, and exhibits of the different divisions.

Locker Lock Problems?

P-570
Master-Keyed Combination Padlock
Finest of all master-keyed padlocks. Cast aluminum case, extra heavy steel shackle. Self-locking. Rotating dial.

The DUDLEY Master Key
Can't be duplicated on ordinary key making machines.

S-540
Master-Keyed Built-in Lock
Fits all locker piercings. Quick combination change with special reset key.

Lockers protected with Dudley Combination Master-Keyed Locks are really safe.

Board Members Agree . . .

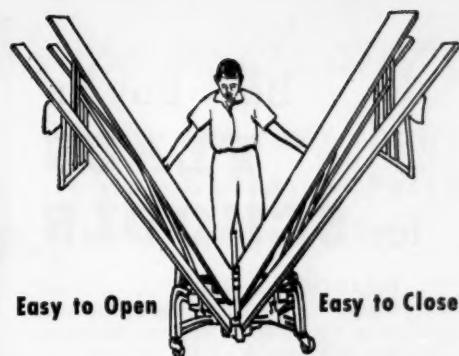
from Maine to California that for long range satisfaction with locker locks, Dudley's give them everything. Some accept no other locks and specify Dudley Combination Locker Locks throughout their school districts. Whether you buy built-in combination locks or combination padlocks you'll find that three generations of pupils, and administrative officials for 37 years have found Dudleys ideal locker protection.

Ask your Dudley representative. He's there to help you—without obligation, of course.

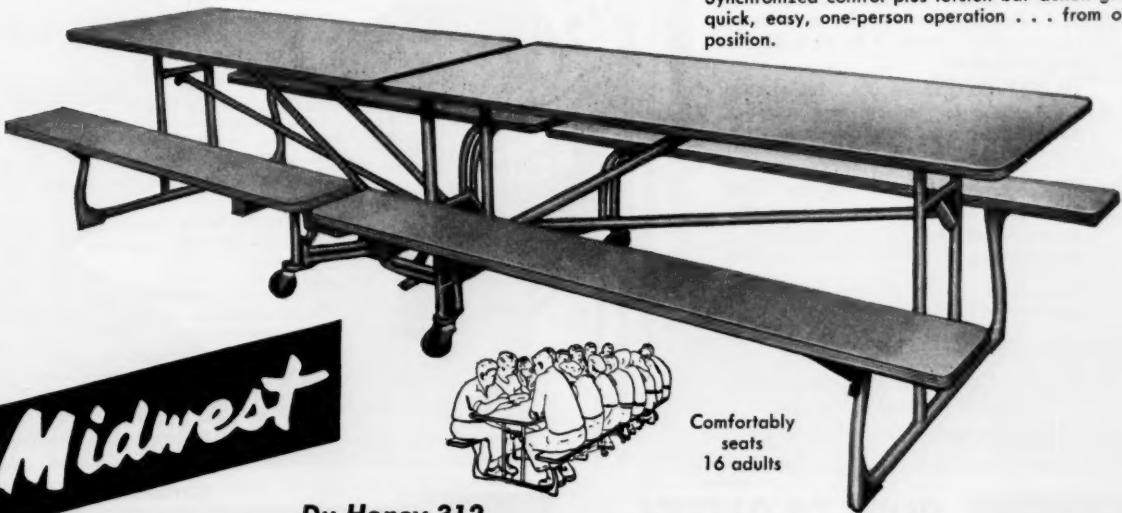
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COMPLETELY PORTABLE—Folds compactly! Rolls smoothly!

EASY TO USE—Smooth action torsion bars do all the work!

USE IT EVERYWHERE—Cafeterias, gymnasiums, classrooms, conferences, study halls

NOW—one person can make the change from gymnasium to cafeteria . . . in a matter of minutes . . . with the new "easy-to-set-up" Midwest Table-Bench Combination Unit. Standing in one position . . . a custodian or even a student . . . can easily and quickly open or close the entire unit in one effortless motion. Synchronized control of both the table tops and the benches, automatically opens and closes the entire unit. No needless wasted motions or extra steps. The Midwest Table-Bench Unit is fast . . . efficient . . . and designed to save you time and reduce your labor costs.



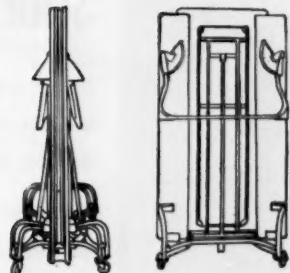
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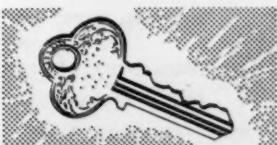
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Folds compactly to go thru any door. Plastic tops fold in and are protected during storage. Benches fold in . . . never touching table tops at any time.



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Submit estimate and details on escapes.

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COMING EVENTS

JUNE

29-July 4. National Education Association, annual convention, Cleveland.

30. United Business Education Association, N.E.A., annual meeting, in conjunction with N.E.A. annual convention, Cleveland.

30. Department of Rural Education, N.E.A., summer meeting, Cleveland.

JULY

6-10. National School Public Relations Association, N.E.A., 5th annual public relations seminar, Detroit.

6-18. Department of Classroom Teachers, N.E.A., 15th annual conference, Bowling Green, Ohio.

7. National School Public Relations Association, N.E.A., annual meeting, Detroit.

7-18. Department of Elementary School Principals, co-sponsored by University of Denver, Denver.

26-29. National Audio-Visual Convention, Chicago.

28-Aug. 7. World Confederation of Organizations of the Teaching Profession, Rome, Italy.

AUGUST

11-15. American Vocational Association, 52d annual meeting, Buffalo, N.Y.

18-20. National Council of Mathematics Teachers, N.E.A., 18th annual summer meeting, Greeley, Colo.

24-30. National Conference of Professors of Educational Administration, 12th annual conference, Kent, Ohio.

SEPTEMBER

22-27. National Council for Schoolhouse Construction, annual meeting, Seattle.

OCTOBER

5-9. Association of School Business Officials of the United States and Canada, 44th annual convention, New York.

10, 11. Department of Rural Education, N.E.A., Minneapolis.

12-15. County Superintendents, Department of Rural Education, N.E.A., Minneapolis.

20-24. 46th National Safety Congress and Exposition, Chicago.

21-24. American Dietetic Association, annual meeting, Philadelphia.

NOVEMBER

9-15. American Education Week. Theme—"Report Card U.S.A."

16-20. National Society for Crippled Children and Adults, Dallas, Tex.

JANUARY

26-28. National School Boards Association, annual meeting, San Francisco.

FEBRUARY

7-11. National Association of Secondary School Principals, N.E.A., 43d annual convention, Philadelphia.

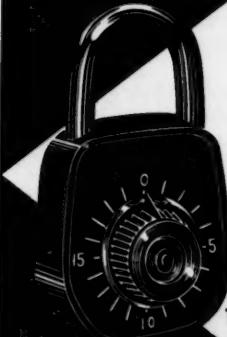
14-18. American Association of School Administrators, Atlantic City, N.J.

16-18. American Educational Research Association, annual convention, Atlantic City, N.J.

MARCH

1-4. National Conference on Higher Education, 14th annual meeting, Chicago.

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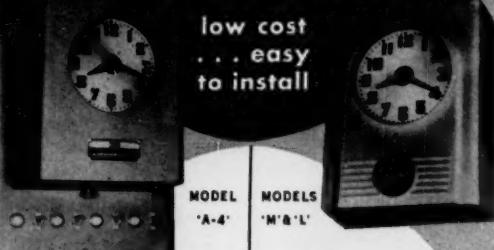
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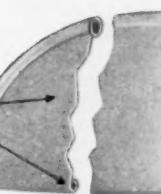
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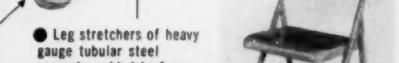
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ABOUT PEOPLE

CHANGES IN SUPERINTENDENCIES

Clyde Parker, superintendent since 1946 at Cedar Rapids, Iowa, has been named to the newly created post of assistant superintendent for personnel and public relations of the Oak Park Elementary Schools, Oak Park, Ill. His new duties start August 1.



Clyde Parker

A native of Indiana, Dr. Parker started his career as a high school principal at Drugger, his hometown, then became city superintendent at Huntingburg, Ind. He also has been superintendent at Washington, Ind., and Moline, Ill.

Wallace C. Glenwright, assistant superintendent, Sandusky, Ohio, to superintendent there, succeeding Carl L. Mackey, who is retiring.

Harry B. Riffle, assistant superintendent, Fayette County, Uniontown, Pa., to superintendent there.

Samuel J. Steinberger Jr., assistant superintendent, Bedford County, Bedford, Pa., to superintendent there.

Lauren Schwisow, former vice principal, Scottsbluff High School, Scottsbluff, Neb., to superintendent there and president, Scottsbluff Junior College, succeeding Otto G. Ruff, who resumes work on his Ph.D. degree at the University of Nebraska.

Lloyd M. Rice Jr. from Ophir, Ore., to Port Orford-Langlois schools, Port Orford, Ore., succeeding Joseph Kampa.

Charles H. Connolly of Troy, N.Y., to superintendent, Lindenhurst, N.Y., succeeding Lawrence C. Lobaugh, who retired.

Eugene M. McKelvey, assistant superintendent, Westmoreland County, Greensburg, Pa., to superintendent there, succeeding James Hughes, who is retiring. Mr. McKelvey won the first contested balloting for the office in 40 years.

J. Smith Jacobs, head psychologist, San Diego County schools, San Diego, Calif., to superintendent, Carlsbad School, Oceanside, Calif.

Dean Hackenberg, high school principal, Ingalls, Kan., to superintendent, Kismet, Kan. He succeeds Merald K. Carter, who becomes superintendent of Long Island, Kan.

Odes Sapp, principal at a Fowler, Kan., elementary school, to superintendent of schools there, effective August 1. He succeeds W. C. Fleming, who is resigning.

Jack Bell, principal and coach, Selden High School, Selden, Kan., to superintendent, Almena, Kan., succeeding J. E. Rankin, who is retiring after 33 years in the teaching profession at Almena.

Robert T. Molland from Flasher, N.D., to Beulah, N.D.

Joseph A. Gorab from Totowa Borough, Paterson, N.J., to the proposed regional high school of Haledon-North Haledon-Prospect Park, Paterson, N.J.

M. Eugen Rodrigues, history teacher at the Arroyo Grande (Calif.) Union High School District, to district superintendent, Oceano, Calif., succeeding Thomas N. Farney, who is resigning July 1.

Chiles T. Pollard, administrative assistant of the Massapequa school system, Massapequa, N.Y., to superintendent, Sayville, N.Y., succeeding Samuel K. Munson, who is retiring July 1.

Stephen J. Polinsky, high school principal, Martins Ferry, Ohio, to superintendent, St. Clairsville-Richland School District, St. Clairsville, Ohio, succeeding Wilbur I. Gregg, who resigned December 31 to become assistant superintendent at Barberton, Ohio.

B. H. Corthell, principal, Port Clinton High School, Port Clinton, Ohio, to superintendent there, effective August 1.

Robert H. Clark, from Webb, Mo., to assistant superintendent, Raytown, Mo.

Charles E. Davis, professor of education at Shippensburg State Teachers College, Shippensburg, Pa., to superintendent.



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ent, Hanover Borough School District, Hanover, Pa., succeeding W. Edward Sheely, who resigned.

T. Edward Rutter from Arlington County, Arlington, Va., to Radnor Township School District, Wayne, Pa.

Clark W. McDermith from Passaic, N.J., to Cranford, N.J.

Hollis Ward, high school principal, Perkins, Okla., to superintendent there, succeeding J. A. McLaughlin.

Vernon L. Barnes from Verden, Okla., to Vinita, Okla., succeeding Raymond Harvey, who will become superintendent of the Star Community School near Oklahoma City.

L. M. Sullivan from Kremlin, Okla., to Boise City, Okla.

Fred E. Bryan from Uniontown, Pa., to Harrisburg, Pa., succeeding Clarence E. Zorger, who is retiring.

Stuart F. McComb, superintendent at Pasadena, Calif., from 1953 to June 1957 and coordinator since, of teacher education projects at the University of Southern California, to Ranchito Elementary School District, Pico, Calif., succeeding Clifford Riddlebarger, who goes to Placentia Unified School District, Placentia, Calif.

H. Clair Henry, assistant superintendent, Jefferson County, Brookville, Pa., to

superintendent there, succeeding John H. Hughes, who is retiring after 27 years in that post.

Edwin E. Everman from Mechanicsburg, Ohio, to Shelby County, Sidney, Ohio.

OTHER APPOINTMENTS . . .

E. Russell Alkire, elementary school principal, San Diego, Calif., to director of child care there, succeeding Walter S. Tatum, who retired.

T. C. Clark, assistant provost and associate professor of education, Teachers College, Columbia University, to associate executive secretary of the Association for Higher Education, a department of the N.E.A.

Fred F. Beach, a U.S. Office of Education official since 1945, has been named director of the school administration branch, U.S.O.E.

Robert F. Topp, dean of education at National College of Education, Evanston, Ill., for six years, to a department of education teaching position, University of California at Santa Barbara, effective September 1.

Mrs. Eulan Cozart of Madison, W.Va., was named president-elect of the School Service Association of West Virginia at its third annual meeting, May 16 and 17. Mrs. Eula Stone of Huntington, W.Va., took office as president for the current year.

George N. Shuster, president, Hunter College, New York, has been appointed by the State Department to replace Athelstan Spilhaus, who is resigning as American member of the executive board of UNESCO. The board is the interim governing body of the organization and is comprised of representatives of 24 of the 80 member states in UNESCO. Dr. Spilhaus, dean of the University of Minnesota's Institute of Technology, has been American member of the executive board since 1955.

B. Anton Hess, principal of Conestoga Senior High School, Paoli Area High School System, Berwyn, Pa., to director of secondary education for the school system.

John S. Benben, former professor of education, Northern Illinois University, De Kalb, to head of the university's department of education. He recently returned from a UNESCO assignment in Sierra Leone, West Africa.

RESIGNED . . .

Howard L. McKenney, superintendent, Auburn, Ind.

Hugh A. Kitson, superintendent for 10 years at Armada, Mich., effective August 31.

E. C. Branstetter, superintendent for 21 years at Spencerville, Ohio.

Jesse N. Roeder, superintendent for 32 years of the Palmerton Area School

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District, Palmerton, Pa., effective in September. He will join the education faculty of Muhlenberg College, Allentown, Pa. Succeeding Dr. Roeder will be **Mearl F. Gerheim**, superintendent of North Huntington school district, Irwin, Pa.

Edward J. Shelton, superintendent at Delhi, Iowa.

W. B. Ray, superintendent at West Point, Ky.

Claude N. Dye, superintendent for 33 years at Bevier, Mo.

Madaline Kinter Remmlein, member of the N.E.A. Research Division staff since 1936 and assistant director since 1944. She will be visiting professor at Cornell University's summer session in educational administration and then assume a limited schedule of part-time teaching, writing and consultative work in school law. Succeeding her is **Martha Ware**, division research assistant.

RETIRED . . .

Herbert S. Mitchell

Herbert Mitchell is retiring in mid-July as school business manager at San Bernardino, Calif., a position in which he has served the last 10 years. He is a former president of the Association of School Business Officials of the United States and Canada (1942) and also a former president of the Michigan Association of Public School Business Officials.

Mr. Mitchell plans to return August 1 to Michigan, where he was business manager of the Dearborn public schools for nearly 20 years (1929-48). He will serve the Wayne County school district as an adviser to school districts on problems of business administration.

Lynn Sprague, superintendent for eight years, Kingsville, Ohio, after 45 years of educational service.

D. E. Ray, superintendent, Jackson, Tenn., for 28 years, after 43 years' school work in West Tennessee. **C. J. Huckabee**, principal, Jackson Senior High School, succeeds him.

Earle O. Liggitt, 67, superintendent for 20 years at Munhall, Pa., retiring after 45 years in public education. During his 40 years as an educational administrator, Dr. Liggitt has been superintendent in Ohio as well as of Crafton, Bridgeville and Freeport schools in Pennsylvania. A member of the "96" Club, which consists of two superintendents from each state, Dr. Liggitt also has served as president of various educational associations in Pennsylvania. He will teach at Miami University, Oxford, Ohio, this summer.

Raymond Anderson, 69, after 19 years as Franklin County Northwest District

superintendent, St. Albans, Vt., and 35 years in the teaching profession. Succeeding him as district superintendent is **Paul B. Trahan**, high school principal, Swanton, Pa.

DIED . . .

B. P. Lewis, superintendent, Rolla, Mo.

Arthur W. Harman, 63 who, because of ill health, recently resigned as superintendent of Plymouth Borough School District, Plymouth, Pa.

Joseph S. Neidig, 60, superintendent, Quakertown, Pa.

John L. Selden, 67, former superintendent, Bristol, Vt.

W. S. Donnell, 68, former superintendent, Rutherford County, Murfreesboro, Tenn., for 11 years.

Orval P. Hill, 67, retired superintendent, Ritchie County, Harrisville, W.Va.

Robert L. Saunders Sr., 76, retired superintendent, Irvington, N.J.

May Aldrich, 80, secretary and director of National Kindergarten Association of New York since it was founded in 1909 by her sister, **Bessie Locke**.

H. Bentley Hobart, 48, instructor in educational administration and acting executive officer, Institute of Adult Education, Teachers College, Columbia University.

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ADMINISTRATION

Perception: Its Relation to Educational Administration. By Daniel E. Griffiths, research coordinator, assisted by Lawrence Iannaccone and James W. Ramey. Central staff of the University Council for Educational Administration, 525 W. 120th St., New York 27. Pp. 11.

Leadership in Elementary School Administration and Supervision. By Albert H. Shuster, Ohio University, and Wilson F. Wetzler, University of Arizona. Houghton Mifflin Co., 2 Park St., Boston. Pp. 489. \$5.50.

You and Management. By Daniel R. Davies, professor of educational administration, Teachers College, Columbia University, and Robert Teviot Livingston, professor of industrial and management engineering, school of engineering, Columbia University. Harper & Brothers, 49 E. 33d St., New York 16. Pp. 272. \$4.50.

Tall Oaks and Little Acorns. A guide for school board members. Prepared by John E. Gee, dean, college of education, Bowling Green State University, and a committee of graduate students. Edited by Lewis E. Harris. Ohio School Boards Association, 3752 N. High St., Columbus 14, Ohio. Pp. 79. \$1.50.

Bethpage, New York. A study in faulty human relations. Report of an investigation by the N.E.A. with the cooperation of the New York State Teachers Association. Pp. 30. Hawthorne, New Jersey. A study in ineptness and apathy. Report of an investigation by the N.E.A. Pp. 30. Monroe, Michigan. A study of a dismissal involving

responsibility for criticism of proposed school policies. Report of an investigation by the N.E.A. and the Michigan Education Association. Pp. 34. National Commission for the Defense of Democracy Through Education, N.E.A., 1201 16th St. N.W., Washington 6, D.C.

CURRICULUM

Building Better Programs in Citizenship. A guide for teachers, administrators and college instructors. By William S. Vincent, Hall Bartlett, Lora Teel Tibbets, and James E. Russell. Pp. 300. \$3.25. **Laboratory Practices in Citizenship.** Learning experiences in the community. Pp. 308. \$3.25. Citizenship Education Project. Teachers College, Columbia University, New York 27.

Statistical Analysis. Revised ed. By Allen L. Edwards, professor of psychology, University of Washington. Rinehart & Co., Inc., 232 Madison Ave., New York 16. Pp. 225. \$4. Workbook to accompany revised edition of **Statistical Analysis**, \$1.25. Ordered together, \$5.

Research in the Three R's. Edited by C. W. Hunnicutt, Syracuse University, and William J. Iverson, Stanford University. Harper & Brothers, 49 E. 33d St., New York 16. Pp. 435. \$6.

Young People's Book of Science. Edited by Glenn O. Blough, 1958 president, National Science Teachers Association, and associate professor of education, University of Maryland. McGraw-Hill Book Co., Inc., Trade Book Dept., 330 W. 42d St., New York 36. Pp. 436. \$4.50.

FROM SCHOOL DISTRICTS

Curriculum Development in Business Education. Pp. 19. Bookkeeping 1 and 2. Pp. 43. Beginning Shorthand. Pp. 16. Advanced Shorthand. Pp. 21. Minneapolis

Public Schools. Vocational High School Print Shop, Minneapolis. 50 cents each.

GUIDANCE

Counseling the Emotionally Disturbed. By C. H. Patterson, University of Illinois. Harper & Brothers, 49 E. 33d St., New York 16. Pp. 446. \$6.

The Elementary Teacher and Guidance. By John A. Barr, San Jose State College. Henry Holt and Co., 383 Madison Ave., New York 17. Pp. 428. \$4.50.

FINANCE

Ability and Effort of the States to Support the Public Schools. By R. L. Johns, head, department of educational administration, University of Florida. Division of Legislation and Federal Relations, N.E.A., 1201 16th St. N.W., Washington 6, D.C. Pp. 11.

Compare the Costs. Comparative shopping shows education is big bargain. Committee on Tax Education and School Finance, N.E.A., 1201 16th St. N.W., Washington 6, D.C. Pp. 16. 10 for \$1 or 100 for \$5.

SALARIES

Salaries of Certified Employees in California Public Schools, 1957-58. By Henry W. Magnuson, chief of bureau, and Peter J. Tashnovian, consultant, bureau of education research, California State Department of Education. California State Prtg. Off., Sacramento. Pp. 14.

SCHOOL LAW

1958 Yearbook of School Law. By Lee O. Garber, school of education, University of Pennsylvania. Interstate Printers and Publishers, Inc., 19-27 N. Jackson St., Danville, Ill. Pp. 180. \$3.

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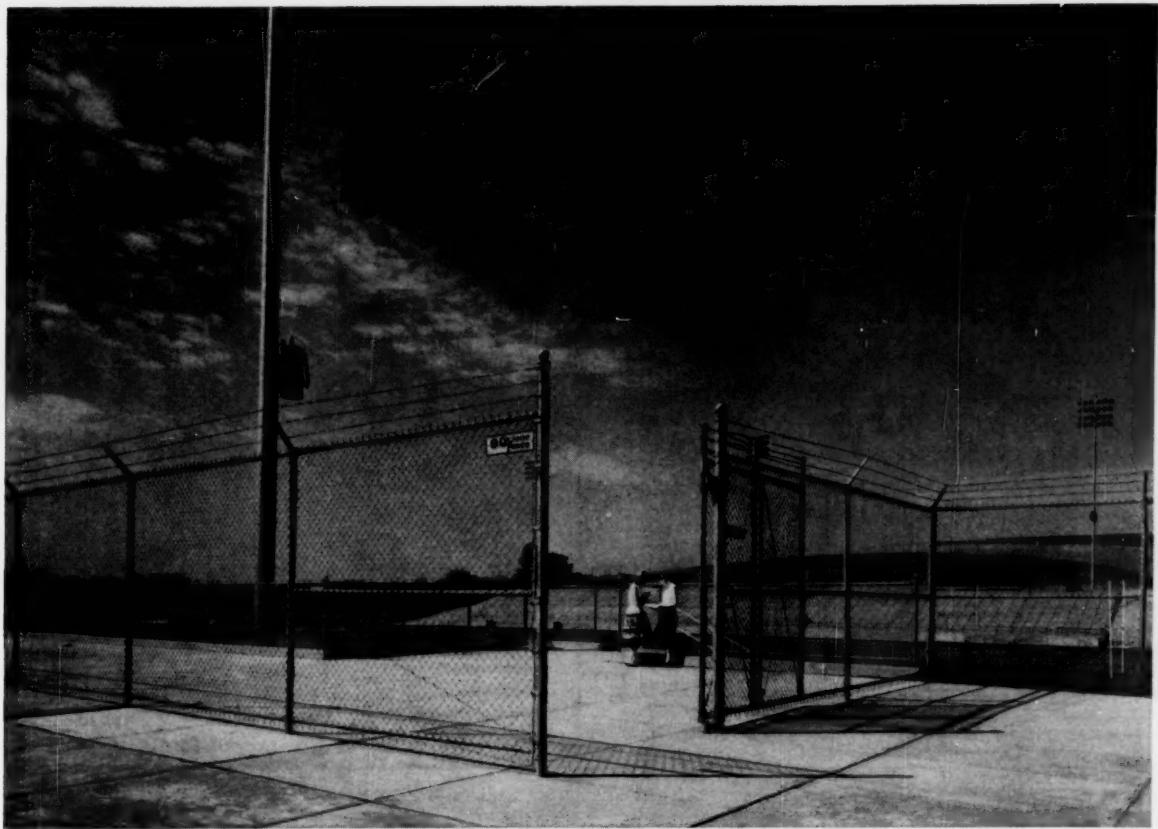
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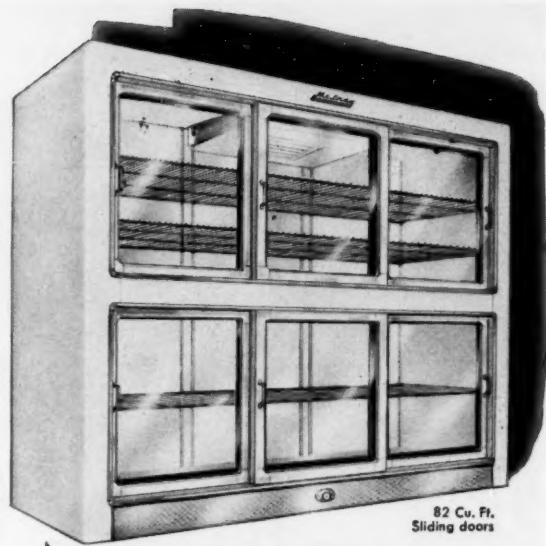


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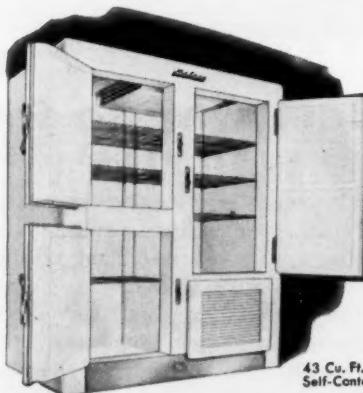
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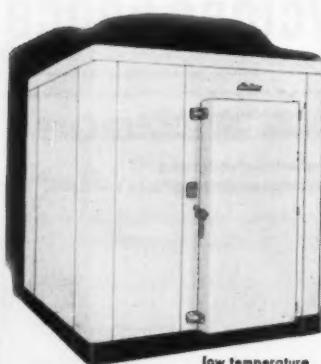
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JULY 1958

Edited by BESSIE COVERT

TO HELP YOU get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 96. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. The NATION'S SCHOOLS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Thinlite Curtain Wall System Is Complete Enclosure Element

When the elements of the new Thinlite Curtain Wall System are put in place, the wall of a building is completely finished, both inside and out. Thinlite glass



units are hollow, two inches thick and 12 inches square. They are assembled at the factory in panels two feet high and either four or five feet wide. Panel perimeters are extruded aluminum which interlock with each other for quick and easy installation. In addition to the panels, the Thinlite Curtain Wall System includes a line of aluminum parts such as sill, jamb, head members and connectors. When panels are bolted into place, gaskets are compressed and automatically form a weatherproof vertical joint. Struts may be used either on the inside or the outside of the building. The attractive and practical system can be installed in record time, a whole side of a building being finished in a day after the basic skeletal structure is erected.

Adapted to buildings of all types, including schools, hospitals, colleges, libraries and other institutions, the Thinlite system is the result of three years of exhaustive studies and engineering. Basic daylighting panels are available in a soft white for general use, a cool blue-green for severe sunlight exposures, and a golden yellow for nonsun exposures. The basic panels are supplemented with colorful Thinlite ceramic-faced glass panels, vista panels (for vision), decorative glass unit panels, porcelain and other special type panels for flexibility of design. Window panels can be either fixed or projected and arranged in any design desired. Each panel is interchangeable with any other panel. Owens-Illinois Glass Co., Toledo 1, Ohio.

For more details circle #189 on mailing card.

Cushion-Eze Tackboard Has Foam Rubber Cushioning

Easy tack removal and insertion is possible with the new Cushion-Eze Tackboard material. Foam rubber cushioning and a patented synthetic rubber and fiber composition permit repeated use in one spot without damage to the tackboard. The

material is lightweight, has sound absorptive qualities, is attractive in appearance and extremely flexible. It is easy to install without the possibility of cracking or breaking, even if folded double.

Cushion-Eze Tackboard is available in three modern pastel colors: Coppertone Tan, Driftwood Grey, and Mint Green, and is supplied in continuous rolls of 48 and 72-inch widths. It may be cemented to any solid wall or to a rigid backing. Armstrong Cork Co., Lancaster, Pa.

For more details circle #190 on mailing card.

Heinz Instant Potato Saves Preparation Time

Time saving and convenience are added to fine flavor, appearance and economy in the new Heinz Instant Potato. Instant potatoes, prepared in small or large batches, permit serving of a Number 10 ice cream disher of fluffy mashed potatoes at a cost less than that of the labor saved.



any quantity can be easily prepared and portion control is another advantage.

Only selected Idaho Burbank Russet potatoes are used in making Heinz Instant Potato, assuring high quality with constant price and convenience. In the processing, vitamin and mineral content are protected to assure good texture and flavor. Heinz Instant Potato does not lose its quality in storage, requires minimum storage space, and since it can be treated as a staple, it requires less critical handling. Many variations of mashed potatoes can be served, such as the potato croquettes pictured. H. J. Heinz Co., Box 37, Pittsburgh 30, Pa.

For more details circle #191 on mailing card.

Door Hardware in Three Basic Styles

A new line of trims and pulls for door hardware is announced by Yale and Towne. Made in three basic styles, the trims and pulls include Gothic, Modern and Colonial. The attractive designs will blend with any type of architecture and give long and lasting service. Two of the

pulls feature a specially designed thumb piece which provides sufficient leverage to eliminate the need for a knob or lever in order to operate a door equipped with a vertical panic bolt from the exterior. Yale & Towne Mfg. Co., 11 S. Broadway, White Plains, N.Y.

For more details circle #192 on mailing card.

Art and Drawing Pencils Offer Complete Range of Technics

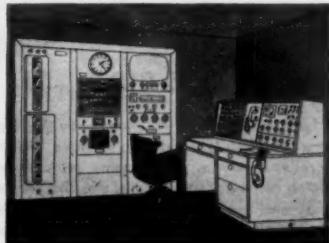
The art teacher and student will have a complete range of technics available with the new line of five grades of art pencils. Thoroughly tested for versatility, durability and performance, the new line includes pencils for drawing, sketching, outline drawing, rendering and deep shading. The new Prang Art and Drawing Pencils have many uses and offer a number of possibilities to student and teacher. American Crayon Co., Sandusky, Ohio.

For more details circle #193 on mailing card.

Single Electronic System Combines All Communications

Communications, alarm and television systems are combined in one electronic network in the multi-purpose communication and signaling DuKane "MCS" system recently introduced. Designed to provide for expanded facilities or for the addition of new electronic services not included in the original installation, the new system permits appreciable savings over the cost of separate system installations.

Six separate systems can be combined in a single installation with the "MCS." Included are fire or emergency alarm and panic control; program clock system; central sound, public address and program distribution; private telephones for two-way classroom to office communications; television program distribution, whether from commercial or closed circuit sources.



and school-to-home equipment for teaching handicapped children. Parts of the system can be installed with provision made for future installation of other features, and provision can also be made easily for future expansion of school facilities. DuKane Corporation, St. Charles, Ill.

For more details circle #194 on mailing card.

(Continued on page 86)

What's New ...

Mechanized Accounting Unit Incorporates Typing

The new Burroughs Typing Sensimatic offers a complete mechanized school ac-



ounting machine for better administrative control. It combines all the advantages of Sensimatic accounting with the features of a new 84-character electric typewriter. The exclusive Sensimatic control unit offers automatic control with full flexibility since each control unit can be programmed to perform four or more separate accounting jobs. Control units can be re-programmed for future changes and the Sensimatic is adaptable to specially designed as well as to standard forms.

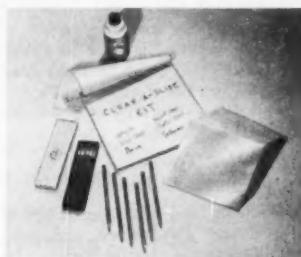
Accounting and typing keyboards on the Typing Sensimatic are arranged so that hands move from one to the other in a natural arc, thus reducing operator fatigue and increasing productivity. Accommodations are offered for all methods of data printing and the unit has built-in operator safeguards. Operators can be quickly trained and any typist can be

taught Sensimatic operation and become efficient in a few hours. The Typing Sensimatic is built so that all parts of the mechanism are readily accessible and easily serviced. The machine makes it possible to provide financial information while it is current and reduces operating costs in the accounting department. Several Typing Sensimatic styles are available with a variety of features to fit every need. **Burroughs Corporation, Detroit 32, Mich.**

For more details circle #195 on mailing card.

"Clear-A-Slide Kits" Produce Slides and Transparencies

Teachers, instructors and lecturers can quickly and easily make color transparencies and project them immediately with



the new Beseler "Clear-A-Slide Kit." Pencils are used on specially treated vinyl slides to make the transparencies. The writing is made permanent, fadeproof and smudge-proof by spraying with a special "Clear-A-Slide" Spray. It dries quickly and the slide is ready for projection. The

kit includes the spray can, layout pads with grid lens, 12 pencils in various colors, eraser, lint brush, 25 vinyl sheets and the container. Slides are designed for use with overhead projectors such as the Vue-Graph. **The Charles Beseler Co., 219 S. 18th St., East Orange, N.J.**

For more details circle #196 on mailing card.

Super-Concentrated Detergent Offered in Liquid "K"

A top quality cleaner with stable suds is offered in Klenzade Liquid "K" Detergent Concentrate. It is easy on the hands and can be accurately dispensed. The highly concentrated compound has high soil-holding capacity, requiring only small amounts in dilution for effective cleaning. It is equally effective in cleaning pots and pans and delicate painted surfaces. **Klenzade Products, Inc., Beloit, Wis.**

For more details circle #197 on mailing card.

Fully Adjustable Desk for Typing and Commercial Classes

A new compactly designed, fully adjustable desk is now available for typewriting and commercial training classes. The fully adjustable typewriter platform assures correct student posture as it may be set at any height between 26 1/2 and 30 inches. Fast, easy setting is achieved through a simple, fingertip control. Available in 36 and 48-inch widths, the large desk top next to the typewriter platform provides ample space for learning materials. The top is of Fiberesin for durability and attractive appearance. Ample space for knee and leg comfort is provided in the understructure of square steel tubing finished in light tan or blue baked enamel. Rubber cushion silent leg glides



protect floors and facilitate moving of desks. A desk of similar design and construction is available at a lower price and offering three fixed typewriter heights. **Smith System Mfg. Co., 212 Ontario St., S.E., Minneapolis 14, Minn.**

For more details circle #198 on mailing card.

Kodak Movie Film Cleaner Removes Dirt As it Lubricates

Two purposes are served by the new Kodak Movie Film Cleaner. It has a lubricant added which restores the proper amount of lubricant to the film while removing dirt and old lubrication. It prolongs the life of the film by minimizing the causes of damage. The lubricant eliminates stickiness which causes unsteadiness of the picture image and sound distortion. **Eastman Kodak Co., Rochester 4, N.Y.**

For more details circle #199 on mailing card.

(Continued on page 88)

"STILL LOOK LIKE NEW!" FLORIDA PRINCIPAL WRITES OF DURHAM FOLDING CHAIRS

Giving complete satisfaction, Durham chairs do double duty in this "Cafetorium." From Madeira Beach Elementary School, St. Petersburg, Principal Robert L. Moore writes: "We like DURHAM folding chairs . . . they are easily, quickly placed in position or stored in limited space. Our custodian finds them easy to handle . . . they do not mar the floor tile in any way. They get more than average use. But, today, they still look like new . . . very comfortable, too."



New Folding
Tablet
Armchair



Exclusive!
Wrap Rack

Durham folding chairs will please you too, from the standpoints of initial cost, handling, maintenance and service. Write today for complete catalog of tubular and channel steel frames, all-metal and upholstered styles, for adults and children. Also folding tables, chair-ladders, steel shelf units. Be sure of the best—buy DURHAM.

DURHAM Manufacturing Corporation
Dept. N-78, Muncie, Indiana

America's Most Complete Line of Folding and Informal Furniture

Now! Lower operating costs with new



illinois NIGHT* CONTROL

*Or anytime!

**A pre-wired, pre-engineered
package for regulating motor-driven
fan heating units!**

The new Illinois Night Control is the low-cost answer to effective off-hour control of motor-driven fan heating units. Perfect for heating or air conditioning systems in schools (including unit ventilator systems), churches, industrial plants, commercial buildings, shopping centers—any place where it's desirable to automatically adjust temperatures during unoccupied periods. No more expensive on-the-job wiring—Illinois Night Control contains everything in one compact, pre-wired cabinet.

HERE'S HOW IT WORKS — Illinois Night

Control automatically shuts off heating unit fan motors—singly or in groups—when they are not needed during unoccupied periods. During these periods the area is heated by convection only until space temperature drops below the desired level. The control then starts the fan which operates until the proper temperature is reached. It's as simple as that!

Illinois Night Control works with normal temperature regulation to reduce needless system operation.

MAIL COUPON FOR MORE
INFORMATION

- Illinois Engineering Company
2035 South Racine Avenue
Chicago 8, Illinois
- Please send me Bulletin No. 570 describing new Illinois Night Control.
- Name _____
- Firm _____
- Address _____
- City _____ State _____

illinois
ENGINEERING

A product of Illinois Engineering Co.
2035 South Racine Ave., Chicago 8, Illinois
Division of American Air Filter Co., Inc.

What's New ...

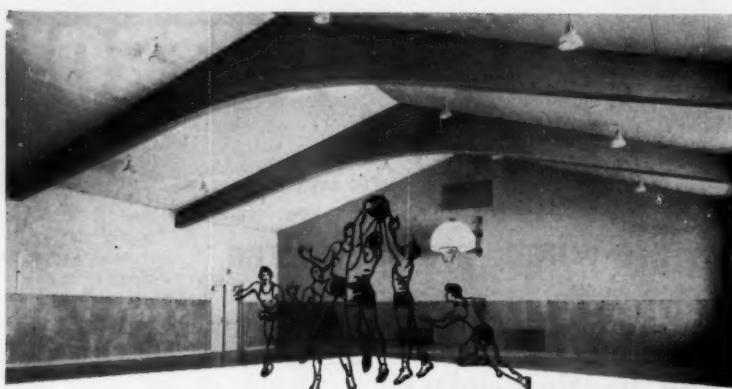
TE-6-A Television Camera for Inexpensive Closed Circuit System



The new single-unit Intra-Tel Type TE-6-A Television Camera is a low-cost

unit. Combined with a suitable lens, a monitor or standard television receiver and the required length of cable, a complete, simple closed circuit television system can be assembled at a relatively low cost. The self-contained camera requires no external control or power units and is comparatively easy to install and service. It can be used with any standard TV receiver and its small size and compactness make it flexible. Its high-quality and low cost adapt it to a broad range of educational uses. The control panel is mounted directly to the back of the camera and the all wired-in chassis components are easily accessible. **General Electric Co., Electronics Div., Syracuse, N.Y.**

For more details circle #200 on mailing card.



Southern Heights school, Fort Wayne
Architect: A. M. Straus, Inc., Fort Wayne
Contractor: Theo. Buesching Construction, Fort Wayne
Rilco arches spanned 49'4", spaced 17'4" o.c.

"Rilco

Beams

pleasing...

economical...

practical!"

RILCO
works wonders with wood

"The Rilco laminated beams used in the Southern Heights school have been very satisfactory. They are, of course, adequate structurally and make a very pleasing appearance. In addition we found their erection to be very economical and practical and certainly intend to use similar construction on future work of this type," writes the architect.

School builders everywhere have discovered the many other advantages of Rilco laminated wood arches, beams, trusses and deck as well. These members are, pound for pound, stronger than other common building materials— withstand temporary overload or impact without permanent damage—cannot rust or corrode, actually improve their appearance with age.

And Rilco members are firesafe—slow to burn, they won't collapse under high temperatures—allow time to save structure and contents. Add to this their economy of cost and time and you see why Rilco members are so popular for school construction.

For information about Rilco schools in your area contact your nearest Rilco office.

RILCO LAMINATED PRODUCTS, INC.

W819 First National Bank Building

Saint Paul 1, Minnesota

DISTRICT OFFICES: Tacoma, Wash., Newark, N. J., Fort Wayne, Ind.

Electric Adding Machine Is Compact and Lightweight

The Add-Mate is an all-electric adding machine weighing only 7½ pounds and standing only five inches high. It has the Underwood Sundstrand natural sequence ten-key keyboard and adds, sub-



tracts, multiplies, repeats, corrects, totals and sub-totals electrically. The machine has a seven-column listing and eight-column total and is color styled for attractive appearance. **Underwood Corporation, 1 Park Ave., New York 16.**

For more details circle #201 on mailing card.

Nuclear Training Package Facilitates Teaching

A completely equipped Student Sub-critical Reactor, a related laboratory of nuclear measuring and recording instruments and detailed experiments for students and instructors are contained in the nuclear training package introduced by Nuclear-Chicago. The training material will make it possible to set up a student nuclear engineering laboratory such as the typical installation shown in the illustration. The manufacturer also offers help to schools submitting requests to the



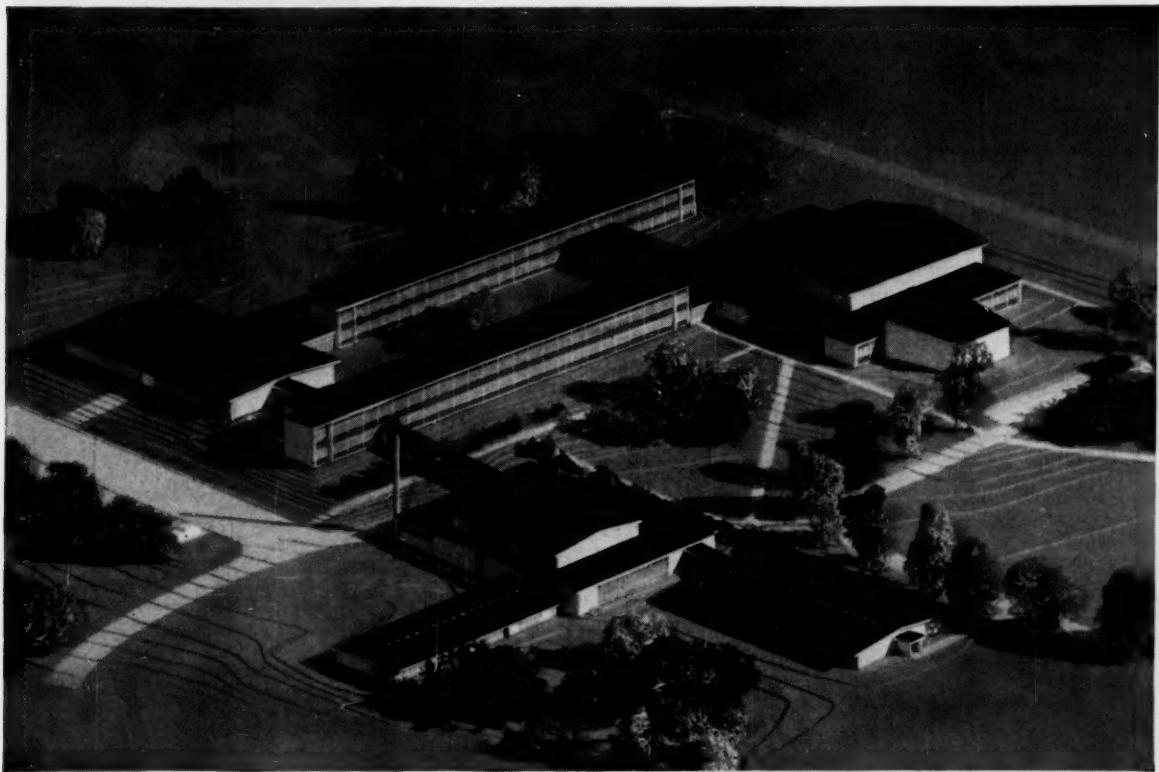
Atomic Energy Commission for financial assistance, according to the announcement.

The heart of the Nuclear-Chicago package is the Model 9000 small, water moderated, natural uranium subcritical reactor. Inherent safety and simple construction make the versatile, easily maintained unit especially suited for teaching purposes. It is designed to fit into a typical college laboratory. The subcritical unit eliminates any hazard of a runaway and needs no complicated shielding, special cooling system or involved safety program. The package laboratory is carefully planned to provide a wide range of group and student experiments and includes an experiment manual outlining procedures in detail. **Nuclear-Chicago Corp., 223 W. Erie St., Chicago 10.**

For more details circle #202 on mailing card.

(Continued on page 90)

A continuing series of outstanding schools, churches, office buildings, hospitals and industrial structures using NORTON DOOR CLOSERS



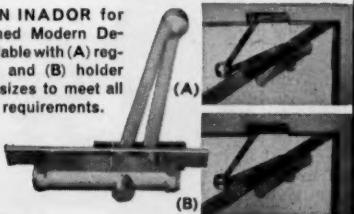
HAARSTICK LUNDGREN AND ASSOCIATES INC.—ARCHITECTS, ENGINEERS
HARDWARE DISTRIBUTOR: WHEELER HARDWARE CO., ST. PAUL, MINN.

SCHOOL PLANNING THAT LOOKS AHEAD SPECIFIES NORTON DOOR CLOSERS

Burnsville School—Independent District No. 191—Savage, Minnesota

Complete Norton Line Meets Every Door Closer Need

NORTON INADOR for Streamlined Modern Design available with (A) regular arm and (B) holder arm...4 sizes to meet all standard requirements.



NORTON 750: New corner design with concealed arms for all type doors, particularly narrow rail doors.



Norton Surface-type Closers are available for all installations where concealment is not essential.

NORTON 703E: Compact surface mounted type...first closer with extruded aluminum alloy shell.

Here's an outstanding new school building—the result of plans that were made to meet some twenty carefully considered objectives. Among them: (1) The building must be functional; modern beauty without waste. (2) It must be of good materials to stand the test of time. These two factors governed selection of door closers.

Interior doors have NORTON INADOR Closers mortised into the top rail. Their compact, fully concealed mechanism packs all the rugged dependable power of true liquid-type closers plus the reliability, low maintenance and precision workmanship common to all *Norton Door Closers*.

Exterior doors use Norton Surface-Mounted Closers, modern counterparts of Norton Closers still in daily use after serving continuously up to 30 years and longer in some of America's most famous public buildings. For fully illustrated data on these and other models, consult the current Norton Catalog. Write for it today.

NORTON® DOOR CLOSERS

Dept. NS-78 • Berrien Springs, Michigan

What's New ...

modern *Arlington* SCHOOL FURNITURE



• A complete choice of models and sizes for every classroom need.



• Complete selection of modern metal colors with desk top surfaces in beautiful, maple-grained plastic.

• Design based on an experience of over fifty years in the school seating field ... to assure structural stability and maintenance ease.

For Complete
information
write for
Catalog 58

ARLINGTON SEATING COMPANY
ARLINGTON HEIGHTS • ILLINOIS



"Gold Aluminum" Eagles Reduce Flag Weight

Aluminum eagles with gold finish are now used on Annin flags to reduce the weight of flags which may be carried by school children in parades or special gatherings. Poles of aluminum are also used to reduce weight with the result that a five-

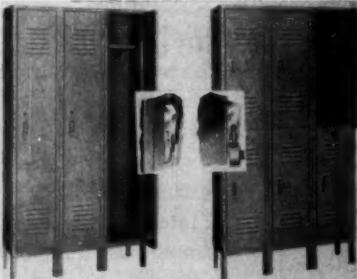


inch wingspread aluminum eagle on an eight-foot by one-inch diameter screw-jointed aluminum pole weighs only 32 ounces plus the weight of the three by five-foot rayon or nylon flag. Other sizes of flags, poles and eagles are relatively light in weight compared with the heavy brass eagles and wood poles. New castings were made for the new aluminum eagles which have an attractive golden finish. Annin & Co., Fifth Ave. at 16th St., New York 3.

For more details circle #203 on mailing card.

Steel Locker Line in Twelve Styles

Twelve styles are included in the new line of Penco steel storage lockers. Included are single, double and multiple tier lockers, two-person lockers and duplex lockers providing full height compartments for two people in space usually occupied by one single tier unit. Also in the line



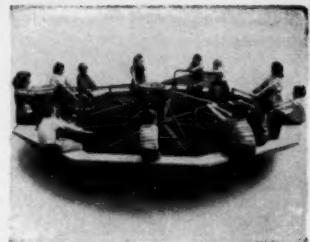
are Air-Lite lockers with expanded metal mesh doors for visual inspection and ventilation.

New features of the Penco Series 6000 locker line include internal lift door handle, continuous strike door frame, full-loop door hinges and optionally available Auto-Lock. The new door handle is fixed and does not move when the latch is operated, eliminating handle replacement due to rough usage. The design also keeps the padlock from marring the door finish. The advanced design and construction features of the new line are incorporated for improved wear, operation and appearance. Penco Metal Products, Alan Wood Steel Co., 200 Brower Ave., Oaks, Pa.

For more details circle #204 on mailing card.

(Continued on page 91)

Designed in Cooperation with
Recognized Authorities on
Play Guidance and
Physical Education



Game-time
UNCONDITIONALLY WARRANTED

**PLAYGROUND
SCHOOL • PARK • POOL
EQUIPMENT**

Easier to Install — Stronger — Safer
Planning and layout service.
WRITE FOR CATALOG

Game-time, inc.
208 Jonesville Road
Litchfield, Michigan
Wholly owned subsidiary of Simpson Mfg. Co.

REQUEST THESE VALUABLE FREE CATALOGS ON

STANDARD

- MASTER CLOCK AND PROGRAM SYSTEMS
- CENTRALIZED EMERGENCY LIGHTING SYSTEMS
- FIRE ALARM SYSTEMS
- FLEXLAB® ELECTRIC SUPPLY AND DISTRIBUTION EQUIPMENT



THE STANDARD ELECTRIC TIME COMPANY

89 LOGAN STREET
SPRINGFIELD 2, MASSACHUSETTS

The NATION'S SCHOOLS

What's New ...

Plastic Salt Dispenser Efficiently Refills Shakers

The problem of keeping salt shakers filled is greatly simplified with the new Quik-Fill plastic salt dispenser. Offered as a premium to institutional buyers of table salt, the dispenser employs the regular 26-ounce round carton of Diamond Crystal table salt which fits into the hopper. Shakers are held under the spigot for filling and an automatic shut-off valve stops the flow of salt when pressure is released, thus eliminating the mess and waste of spilled salt. Eighteen two-ounce



shakers can be filled from one carton in minimum time. The dispenser is molded of high-impact styrene and has a weighted base and flanges which can be bolted down if desired. Diamond Crystal Salt Co., 916 Riverside St., St. Clair, Mich.

For more details circle #205 on mailing card.

Silent Reading Pacer Is Inexpensive and Self-Powered

Simple, silent operation, low cost, non-electrical power and ready portability are features of the Franklin Reading Pacer. Because the compact, lightweight unit folds into itself, not more than a few seconds are required to set it up or lock it for carrying. Both controls are at the front of the machine. The working elements are located under the desk-like surface, which is sloped at the optimum angle for comfortable reading.

Developed after extensive consultation with directors of reading improvement programs throughout the country, the



Pacer is completely silent in operation. It consists of a shutter that moves smoothly down over a page of reading material at an adjustable rate of travel. Either the thin rod or broad vane may be used interchangeably, depending upon the reader's progress. Any of a variety of speeds may be instantly selected. Franklin Research, 1922 Bonita Ave., Berkeley 4, Calif.

For more details circle #206 on mailing card.

Whelan Explorer for Science Teaching

A completely self-contained science laboratory for the teaching of science

at elementary and junior high school levels is offered in the new Whelan Explorer.



A stainless steel sink is set into the durable, hard plastic top which is

easily wiped clean and resists damage and wear. The storage area will accommodate equipment for any science program from the beginner to the junior high level.

The Explorer is a demonstration-student participation, all-purpose unit available for semi-permanent installation or as a movable unit on casters to serve several classrooms. Designed with the assistance of science instructors, it has a modern tapered exterior with birch finish. A kit containing the minimum essentials for a school science program is also available. Whelan's School Equipment Div., 715 E. 4th, Topeka, Kans.

For more details circle #207 on mailing card.

(Continued on page 92)



ORDER YOUR NEW FURNISHINGS SHIPPED UNCRATED AND SAVE Via North American Van Lines

FROM FACTORY TO YOUR DOOR
THE DAY YOU SPECIFY

HOW YOU SAVE

Your equipment comes uncrated in the big, clean, padded North American vans, direct from factory to your door the day you specify! No storage, no excess handling, no pileup, no local drayage. You also save crate material and labor, crate weight and uncrating cost.



MAIL COUPON FOR FACTS ABOUT
CUTTING COSTS & SAVING TIME

HOW
TO
CUT
COSTS

North American Van Lines
Dept. S, World Headquarters, Fort Wayne, Indiana

NAME _____

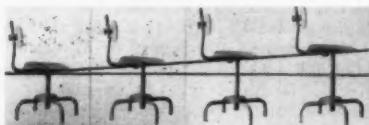
ADDRESS _____

CITY _____ STATE _____

What's New ...

Posture Chairs Readily Adjust to Height

The Harco posture chairs and stools for use in all departments of the school and



the school office are quickly and easily adjustable to the desired height with the automatic "Lift-Lok" mechanism. Instant, positive and silent adjustment of a full eight inches is accomplished by merely

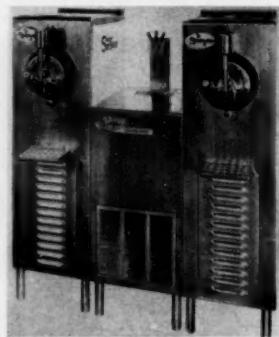
lifting the seat to the desired height. The seat is as readily and easily lowered without the use of screws, ratchets, bolts or handles. The Harco line of posture chairs and stools is sturdily constructed of steel with steel or plywood seats and rubber cushion glides or casters. **Garrett Tubular Products, Inc., P.O. Box 237, Garrett, Ind.**

For more details circle #208 on mailing card.

Sweden SodaServer Occupies Minimum Space

The new Sweden SodaServer dispenses any three flavored drinks, carbonated or non-carbonated, plus plain carbonated water. It is designed to harmonize with

the Sweden soft ice cream and automatic milk shake dispensers in appearance and high production capacity. Occupying only 16 by 20 inches of floor space, it is capable of producing 300 drinks per hour. When combined with the Sweden ShakeMaster and SoftServer, the service unit, in addition to the soft drinks, dispenses 360 milk shakes and 20 gallons of soft ice cream per hour while taking up less than four feet in length of floor space. The stainless steel units form an ideal combination for fast service in the school cafeteria or



lunchroom as well as at athletic functions or other public occasions in the school. **Sweden Freezer Mfg. Co., 3401 Seventeenth Ave. W., Seattle 99, Wash.**

For more details circle #209 on mailing card.

"WE SAVED THE TAXPAYERS \$100 IN TOWEL COSTS and got a better service!"



So reports the Superintendent of Schools in a Mississippi city. A change from folded towels of average quality to strong, fast-drying Mosinee Turn-Towls — dispensed from the controlled type Turn-Towl cabinets — produced this saving in towel service cost.

And there's less janitorial cost because cabinets do not require filling as often. Fewer used towels to handle, too — Turn-Towl service reduces consumption as much as 50%.

Write for name of your nearest distributor

BAY WEST PAPER CO.

1106 West Mason Street, Green Bay, Wis.
Subsidiary of Mosinee Paper Mills Co.



to accommodate a variety of materials and apparatus, and cork and pegboard panels for additional display and demonstration purposes. A sturdy push bar and rubber tired ball bearing casters with brakes facilitate mobility. The table top is of laminated solid maple coated with chemically resistant green finish with stainless steel sink inset. Equipment to stock the table is also available. Set "A" is adequate to teach kindergarten through six grade science and Set "B" for an effective science program at the upper grade level. **Science Kit Inc., Box 69, Tonawanda, N.Y.**

For more details circle #210 on mailing card.

(Continued on page 93)

What's New...



CHANGE
ROOM-USE
IN MINUTES!

13'10" TABLES and BENCHES QUICK USE-FAST CLEARANCE



STORED IN A STEEL
WALL CABINET
• • •
EASY TO ROLL OUT
OR LOCK BACK IN
• • •
SIMPLE OPERATION

Mitchell
TABLES and
BENCHES
FOLD-O-LEG
Doubler



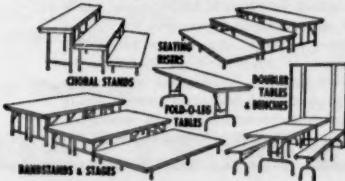
VERSATILE, SAFE UNITS THAT CAN BE USED ATTACHED OR DETACHED FROM THE CABINET



The modern way to
increase the use of gym-
nasiums, halls or class-
rooms.

Tables and benches are separate units that can be kept attached to cabinet for quick lunches, arts and crafts, etc., or rolled free for banquets, games and other activities where tables are needed. Choice of top materials in many patterns and colors.

A COMPLETE LINE OF SPACE-SAVING, PORTABLE, MULTIPLE-USE EQUIPMENT



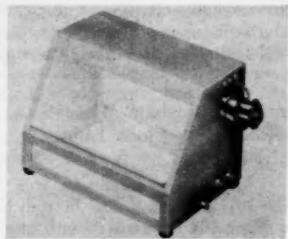
Write for Descriptive Folders

MITCHELL MFG. CO.

2734 S. 34th St. • Milwaukee 46, Wis.

Tolco Fume Hood Is Compact and Portable

Strength, durability and light weight are features of the new compact Tolco Fume Hood. Readily portable, the unit is constructed of Grade AA acid resisting



baked-on porcelain enamel over aluminum. Safety glass front and rear windows are trapped behind the hood frame. The hood is raised by a handle and the entire top opens for easy access to apparatus being used in the hood.

The floor drain is located below the floor level for ease of cleaning. Large rubber feet provide a firm foundation and keep the hood off the bench. The electrical chamber is sealed against entry of explosive fumes and the built-in two-lamp fluorescent lighting has diffusing protective glass. The Tolco Fume Hood has internal built-in fused wiring, light switches, blower switch and utility outlet for connecting heating jackets. The Tolerton Co., Alliance, Ohio.

For more details circle #211 on mailing card.

Uni-Matic "Auto-Stat" Speeds Photocopying

One-step synchronized operation which speeds the making of photocopies is featured in the new model of the Apeco Uni-Matic Auto-Stat. A more intensified fluorescent light source was especially developed for Apeco. This, together with a faster motor and recent improvements in



Apeco photocopy paper and chemical concentrate also contribute to the speedier operation of the new Uni-Matic. The original copy of anything printed, typed, written, photographed or drawn, is inserted with the photocopy paper for production of a perfect copy in one operation.

The desk top photocopy has a horizontal color control dial on the front for rapid selection of settings for copying from any color of paper or ink. All essential working parts are made of stainless steel and the housing is of Melamine. The unit operates on normal electric current. American Photocopy Equipment Co., 1920 W. Peterson Ave., Chicago 26.

For more details circle #212 on mailing card.

MAKE STEPS SAFE!

MELFLEX Molded Rubber STEP TREADS

Give Lasting SAFETY
with Colorful Beauty



All-black treads for extra heavy duty service are 1/4" thick . . . Marbleized treads in green, blue, terra-cotta, brown, gray are 3/16" thick. Color is permanent regardless of wear. Can be matched with riser and landing coverings for decoration. Apply permanently with Melastic water-proof bonding cement to wood, concrete, metal, tile steps. Treads are supplied trimmed to fit your steps—no cutting or waste.

MELFLEX PRODUCTS CO., Inc.

C 410 S. Broadway, Akron 8, Ohio
Please send catalog and prices of Step
Treads and other SAFETY products.

Name _____

Firm _____

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City & State _____

What's New ...

Custom-Modular Cafeteria of Stainless Steel with Continuous Top

Modular base construction combined with continuous custom tops provide standardization with flexibility in the new



stainless steel Bastian-Blessing Custom-Modular Cafeteria equipment. The line permits the design of a cafeteria layout to meet individual requirements at minimum cost. The equipment is designed for use in every type of cafeteria application with modular base units produced to fit any layout. Limitless possibilities are permitted in length and arrangement.

The continuous tops are built with the same freedom from dirt-catching cracks and crevices found in custom built tops. The decorator counter fronts are available in a wide variety of Formica and other plastic laminates with extruded aluminum along the bottom edge and rear surface covered with Formica to prevent water damage. The continuous rolled contour edge on both sides of the top facil-

itates cleaning and improves appearance. Fully rounded adjustable nine-inch stainless steel legs are standard. The Vaporomatic automatic moist heat food warmer which requires no manual filling and operates without steam is included with the Dial-a-Food control. Soda fountain units are also available as part of the Custom-Modular equipment. **The Bastian-Blessing Co., 4203 W. Peterson Ave., Chicago 46.**

For more details circle #215 on mailing card.

Seven Dirt-Resistant Waxes Added to Multi-Clean Line

Seven new waxes which resist soiling because they are completely free from tacking are now available in the Multi-Clean line. Floors treated with the new waxes are said to require less frequent cleaning and when they do become soiled, the dirt is easily removed. The new waxes are available in regular and anti-slip formulations and in Deep Glow Floor Wax which is a budget priced, water resistant product. **Multi-Clean Products, Inc., 2277 Ford Pkwy., St. Paul 1, Minn.**

For more details circle #216 on mailing card.

White-Wunder-Wipe Cloth for Dusting and Heavy Duty Wiping

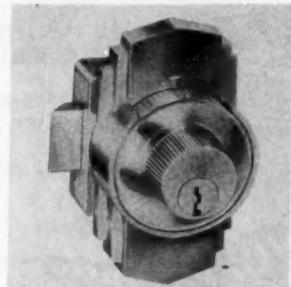
General cleaning and dusting as well as heavy duty wiping chores in laboratories, boiler rooms, shop, printing and duplicating rooms and similar areas are facilitated with the new White-Wunder-Wipe Cloth. The wipers are made of 100 per cent cotton fibers and will absorb nine to ten times their weight in water and

seven to eight times their weight in oil. They have high tensile strength, are treated to lower surface tension and are packed 50 wipers to the pound. **Textile Products, 181 Chestnut St., P.O. Box 638, Newark 1, N.J.**

For more details circle #215 on mailing card.

No. 8020 Locker Lock Is Rugged and Easily Maintained

Screw assembly construction of the new Model Number 8020 Sargent and Greenleaf school locker lock permits on-the-spot maintenance. This new addition to the line is a rugged lock with heavy duty construction for years of trouble-free service. The combination can be quickly



changed by a custodian without disassembling the lock or opening the door and the new lock has a spy-proof dial and ring restricting number visibility to the person dialing the combination. **Sargent & Greenleaf, 27 Seneca Ave., Rochester 21, N.Y.**

For more details circle #216 on mailing card.

(Continued on page 95)

**Whatever You Clean,
Clean It BETTER
WITH**

CREME COTE
ALL-PURPOSE *Emulsified*
ANTISEPTIC CLEANER
WITH HEXACHLOROPHENOL

Recommended For:
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Newest on the classroom scene!

QUADRALINE
by american desk

A complete line of school furniture in future tense! You'll notice a marked improvement in working conditions with a unit like the "Jr. Exec" shown with Series 500 Chair. A counterpart of adult working facilities, it's generous with work space — economical with space requirements! A rugged, well-balanced unit...easily adapted to changing class needs. Permits grouping, side-by-side or staggered seating arrangements.

For Competent Assistance, Complete Details, Ask Your State AD Representative

american desk manufacturing co. temple, Texas

What's New...

Literature and Services

- The "Task-Force 58 Chevrolet School Bus Chassis" is the subject of a colorful 8-page brochure released by Chevrolet Motor Div., General Motors Corp., Detroit 2, Mich. Data on the new features in the 1958 line, with illustrations and line drawings of details and lists of standard and optional equipment are among the facts included.

For more details circle #217 on mailing card.

- Young's Wheeled Equipment for Schools and Universities is listed and described in Catalog No. 57 released by The Paul O. Young Co., Line Lexington, Pa. The 36-page booklet illustrates and describes carts and trucks for maintenance and housekeeping in educational institutions. Illustrations show equipment in use and prices are included.

For more details circle #218 on mailing card.

- Catalog No. 108, published by the Nissen Trampoline Co., 200 A Ave., N.W., Cedar Rapids, Iowa, presents innovations in design, new features and several new models of Trampolines. The catalog contains photographs, complete specifications and prices for all Trampolines, from the Goliath to the back-yard Thumper, as well as optional equipment and parts. Instructional aids are also included.

For more details circle #219 on mailing card.

- A complete set of 24 color reproductions which illustrate the wide range of glazed and unglazed facing brick for all types of interior and exterior walls is in-

For more details circle #220 on mailing card.

corporated in Brochure # B-158. Prepared in file folder form by Natco Corp., 327 Fifth Ave., Pittsburgh 22, Pa., for easy filing and quick reference, the material also includes detailed information on size, color and availability of Standard, Roman, Norman and "SCR" brick.

For more details circle #220 on mailing card.

- Aquariums, fish, plants, fish food and all aquarium accessories available from Beldt's Aquarium, Inc., Robertson, Mo., are illustrated and described in Catalog F-57. Tropical fish are illustrated in color, and information is given on how fish and other equipment are shipped.

For more details circle #221 on mailing card.

- Structoglas "A" reinforced plastic corrugated building panels and flat panes are described in an eight-page catalog released by the Structoglas Division of International Molded Plastics, Inc., 4387 W. 35th St., Cleveland 9, Ohio. Illustrations show the use of these panels in gymnasiums and swimming pools. Details of mechanical and physical properties, colors and finishes, as well as installation data are included in the booklet.

For more details circle #222 on mailing card.

- Information on and illustrations of Stran-Steel school buildings, from gymnasiums to bus garages, is given in a new brochure, "What Price Schools?" A workable solution to the school building problem through pre-engineered steel school buildings is discussed. The leaflet is available from Stran-Steel Corp., Detroit 29, Mich.

For more details circle #223 on mailing card.

(Continued on page 96)

- Glowing color is used to picture actual installations of Romany Spartan Ceramic Tile in the brochure, "The Talents of Tile in School and College Buildings" published by the United States Ceramic Tile Co., Dept. M-12, 217 Fourth St., N.E., Canton 2, Ohio. The attractive tile applications include walls, floors, counters and wainscoting in kitchens, locker rooms, washrooms, lobbies and other areas.

For more details circle #224 on mailing card.

- A 6-page three-color folder discusses "How to Provide Lower Cost School Seating." An economical way to gain space in overcrowded schools by using folding chairs in multi-purpose areas is illustrated, with data on the chairs manufactured by Clarin Mfg. Co., 4640 W. Harrison St., Chicago 44.

For more details circle #225 on mailing card.

- How 3-D can be used in the teaching of solid geometry is illustrated and described in a new folder released by Keystone View Co., Meadville, Pa. The Keystone Stereoscopic Drawings of Figures of Solid Geometry and how they speed and facilitate the teaching of this subject are the theme of the folder.

For more details circle #226 on mailing card.

- An instruction booklet on "Hearing Tests for School Children and How to Conduct Them" has been prepared as a service to schools by the Audiometer Division, Beltone Hearing Aid Co., 2600 W. 36th St., Chicago 32. All details on the tests, rooms used and equipment are included in the booklet.

For more details circle #227 on mailing card.

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FAMILIES

During certain convention periods, all available Kansas City hotel rooms are frequently taken.

You can be assured of comfortable accommodations in Kansas City, by writing for your FREE "Preferred Guest Card" from the Bellerive Hotel, today. The Bellerive—preferred by the family, and business executives for convenience and courteous hospitality at sensible rates—guarantees (with advance notice) reservations anytime of the year to you, the preferred guest. Ask for your "Preferred Guest Card", today . . . at no obligation. Free Radio & Television set in every Room. Rates from \$4.50

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Cenco the most complete line of scientific instruments and laboratory supplies in the world.

CENTRAL SCIENTIFIC CO.
1716 Irving Park Road • Chicago 13, Illinois

What's New ...

• New ideas in lighting fixtures for all types of institutions are presented in the new "LL" Catalog released by Meierjohann-Wengler, 1102 W. Ninth St., Cincinnati 3, Ohio. It carries nearly 200 illustrations of Contemporary and Traditional Lighting Fixtures, with descriptive information.

For more details circle #228 on mailing card.

• Not only Quantity Recipes for Lamb are given in the new Bulletin No. 3 issued by the American Sheep Producers Council, Inc., Consumer Service Dept., 909 17th St., Denver 2, Colo. Of equal interest to the school is the nutritional evaluation report on each recipe included. Recipes feature inexpensive cuts of lamb.

For more details circle #229 on mailing card.

• The four sizes of Schemenauer Unit Ventilators and the full line of matching components are illustrated and described in a new folder released by Schemenauer Mfg. Corp., Holland, Ohio. How the equipment complements modern classrooms with large glassed areas is discussed and specifications of unit ventilators and cabinets are included.

For more details circle #230 on mailing card.

• "Classrooms for Easy Listening," is the title of a 16-page booklet in easy-to-read, everyday language with simple explanatory drawings presented by The Flexicore Co., Inc., 1932 E. Monument Ave., Dayton 2, Ohio. It illustrates the importance of voice reinforcement and the control of reverberation time, as well as the use of sound reflective ceilings and acoustical treatment.

For more details circle #231 on mailing card.

Film Releases

"Tagline for Success," 25-frame free film-strip on good grooming, with teacher's manual, posters and leaflets. Educational Service Dept., Bristol-Myers Products Div., 45 Rockefeller Plaza, New York 20.

For more details circle #232 on mailing card.

"Education in America: The Seventeenth and Eighteenth Centuries," "Education in America: The Nineteenth Century," and "Education in America: Twentieth Century Developments," series of three 16mm films, each 16-minutes, color or black and white, for teacher-education, U.S. history and vocational guidance courses. Coronet Films, 63 E. South Water St., Chicago 1.

For more details circle #233 on mailing card.

"Heroes of Greek Mythology," six filmstrips in colors: "Ulysses in the Cave of the Cyclops," "Jason and the Golden Fleece," "The Golden Apples of the Hesperides," "Orpheus and Eurydice," "Pegasus and Bellerophon" and "Daedalus and Icarus." "Mexico—Yesterday and Today," six filmstrips in color: "The Aztecs," "Cortes Conquers the Aztecs," "Indians of Mexico Today," "Mexico Town and Country Life," "Native Mexican Handicrafts" and "Mexico City." Jam Handy Organization, 2821 E. Grand Blvd., Detroit 11, Mich.

For more details circle #234 on mailing card.

"Theodore Roosevelt—American," 30-minute motion picture, from the start of his political career until his last campaign for the Presidency. United World Films, Inc., 1445 Park Ave., New York 29.

For more details circle #235 on mailing card.

Suppliers' News

Audio Equipment Co., Inc., manufacturer of Audio Hailer electronic megaphones, announces removal from Great Neck, L.I., to a new, air-conditioned plant at 75 Harbor Rd., Port Washington, L.I., N.Y.

Encyclopaedia Britannica Films Inc., 1150 Wilmette Ave., Wilmette, Ill., announces the establishment of a Development Department under the direction of Robert P. Brown, to serve as a free, non-commercial consulting service. The department will provide audio-visual experts to conduct workshops or aid in film utilization.

St. Charles Manufacturing Co., St. Charles, Ill., manufacturer of hospital casework and school cabinetwork, announces the creation of a Direct Institutional department under the direction of C. M. Jewett. The new representative will counsel and assist in working out casework blue prints for institutions.

Plastics Mfg. Co., 2700 S. Westmoreland, Dallas 33, Tex., manufacturer of Dallas Ware melamine plastic dishes since 1945, announces completion of its modern air-conditioned plant in the Santa Fe Industrial District of Dallas. The company also manufactures Regal Ware for institutions, Konite plastic tumblers, goblets and sherberts, Texas Ware for home use, and Texan Tray, a laminated Fiberglas and polyester resin serving tray.

improved AUDIO-VISUAL LIGHTING CONTROL



Shades Open to Provide Even, Diffused Light



Shades Closed for Ideal Audio-Visual Light Level

WOVEN WOOD *Loomwood*
AUDIO-VISUAL SHADES

Complete flexibility of light control is now possible with this new Audio-Visual shade. Constructed of precision-beveled basswood splints woven with seine twine by American craftsmen. Darkens without sacrificing ventilation.

NEW TEMLITE LOOMWOOD SCHOOL CATALOG NOW AVAILABLE
WRITE TODAY FOR YOUR FREE COPY

SOME CHOICE TERRITORIES AVAILABLE FOR
ESTABLISHED MANUFACTURER'S REPRESENTATIVES

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Everybody's Talking About

KLENZADE

Liquid

SENSATIONAL NEW CLEANING CONCENTRATE WITH AMAZING DISHWARE FLOODING POWER!

DETERGENT CONCENTRATE

FORMULA LC-300 GENERAL CLEANING

CONTENTS: ONE U.S. QUART

"RUNS" AFTER DIRT

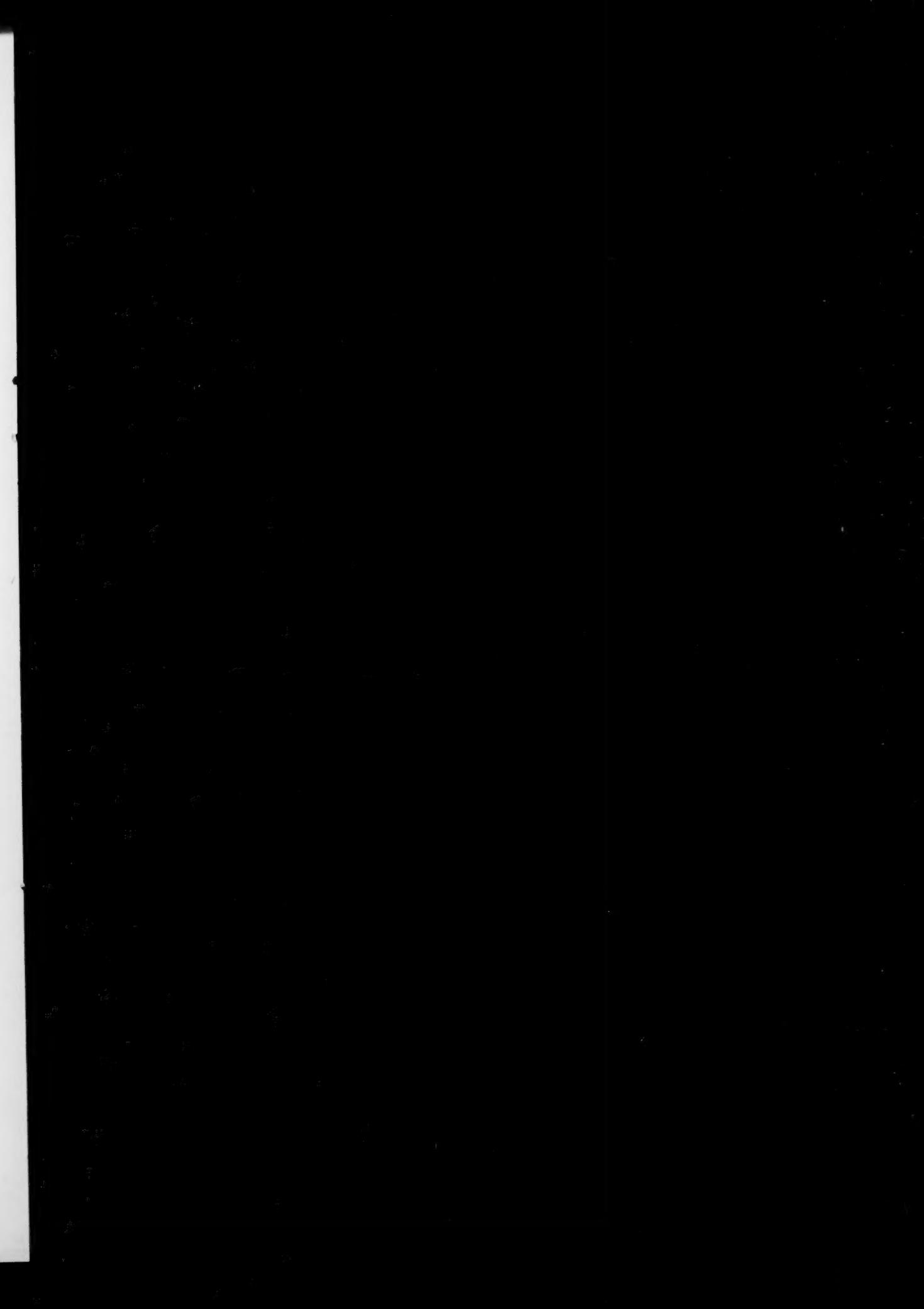
LIQUID K CONCENTRATE

Perfect FOR FOOD SERVICE AND INSTITUTIONAL USE

Fastest concentrate yet devised with tremendous reserve of cleaning power . . . yet gentle. Exceptional versatility for all manual cleaning tasks—high quick penetration, complete soil suspension, free rinsing, rapid drying. Excellent for silver dip tanks.

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KLENZADE KLENZADE PRODUCTS, INC.
Beloit, Wisconsin



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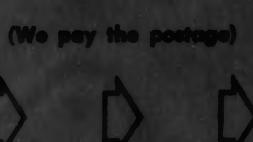
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I am interested in the items checked.

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EWII

INDEX TO ADVERTISEMENTS ON FOLLOWING PAGE



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When, in either an advertisement or "What's New", you locate the product, turn to the index to advertisements on the following page or to the index of "What's New" items (left) where you will find the key number for the item. These advertised are listed alphabetically by manufacturer. "What's New" items are in key Number order. Circle the corresponding key number on the card below for each item in which you are interested. The second card is for the use of sources also who may have more product data.

Details and full story you may require.

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July, 1959 (a)

WHAT'S NEW

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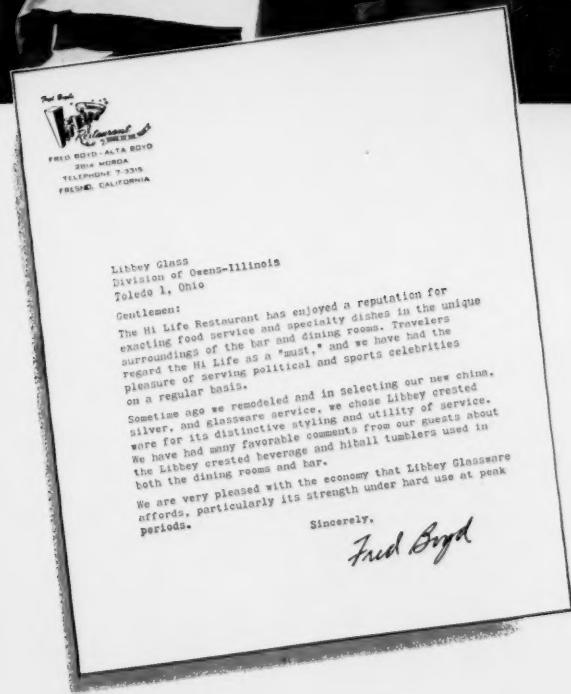
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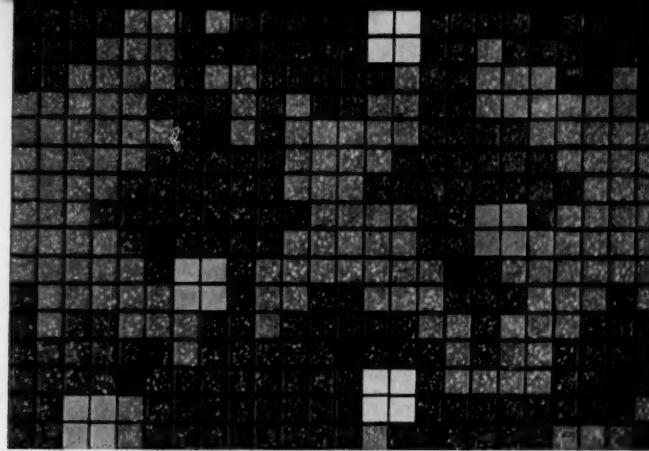
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Light Blue	1060
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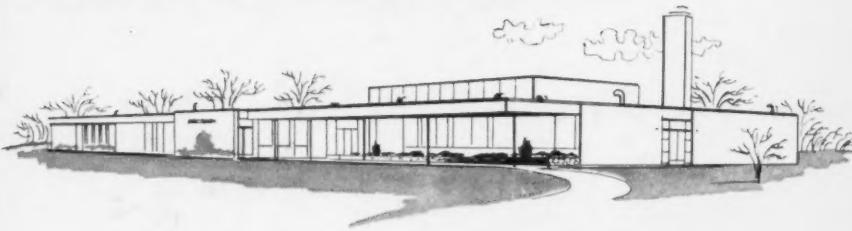
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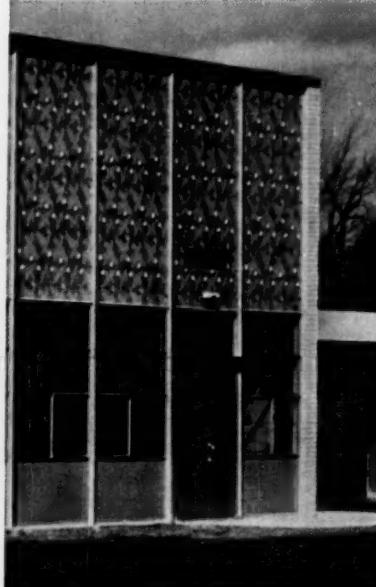


Plate No. 1057

BATES ELEMENTARY SCHOOL
Brownstown Township, Michigan

Architect:

WALTER J. ROZYCKI

Detroit, Michigan

Tile Contractor:

MICHIGAN TILE & MARBLE CO.

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